

SCHOOL LIFE

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OFFICE OF EDUCATION

In this issue

Adult Education

THREE MESSAGES

School Finance and Public Finance

ALBERT L. ALFORD

APRIL 1961



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Statement to the press

By Sterling M. McMurrin on the day he took the oath of office as U.S. Commissioner of Education

THE PRESIDENT has greatly honored me by this appointment to the office of Commissioner of Education. I appreciate the confidence placed in me by the President and Secretary Ribicoff. Their profound grasp of the meaning of education and their commitment to its values are an inspiration to the entire Nation.

We face educational problems of great magnitude. There is a serious shortage of highly qualified teachers and adequate facilities; a neglect of the social sciences, the humanities, and the fine arts; a need for upgrading the quality and rigor of education at all levels; a necessity for a more intensive pursuit of basic research in education and the behavioral sciences and for the employment of its results in the solution of current problems.

Above all, there is the problem posed by the almost tragic role of the teacher in our society.

These problems, and many others, are of grave national—even international—concern. As in the past, we may expect that the Federal Government will assist in the solution of these problems. And, as in the past, we must be sure that Federal support does not discourage the traditional responsibility that State and local governments and private agencies have for education. Rather, Federal support should encourage them to increase their creative initiative and give them a greater incentive to commit their human and economic resources to education.

I assume the responsibilities of the Commissioner's office with certain convictions.

It would be disastrous for us to adopt any system of education that is inconsistent with the American democratic ideal. However, we should take note of the dedication to educational

(Continued on page 22)

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • ABRAHAM A. RIBICOFF, *Secretary*

OFFICE OF EDUCATION . . . STERLING M. McMURRIN, *Commissioner*

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Brief.

EDUCATION AND GOVERNMENT

Reports

Research on dependency

The Social Security Administration of the Department of Health, Education, and Welfare has awarded contracts to four colleges and universities for cooperative research into the causes of dependency. Social Security Commissioner William L. Mitchell, on announcing the grants, said that the studies, the first in a new program of cooperative research, will be a start in "collaboration between the Federal Government and public and private agencies in the search for knowledge that can prevent dependency."

Each institution will concentrate on one part of the problem:

University of North Carolina, on the background and social consequences of unwed motherhood.

Bryn Mawr College, on attitudes toward dependence among mothers of illegitimate children receiving public assistance.

Brandeis University, on the impact on families of the denial of public assistance.

University of Chicago, on administrative practices in the organization and use of public assistance personnel.

Facts on women workers

Nearly all women in the United States contribute to the national economy as jobholders, homemakers, or both. For most of them homemaking remains the No. 1 occupation, but 23 million—nearly one out of three—

held jobs outside the home in April 1960.

This is one of the facts reported by the Department of Labor in its latest biennial report on women in the labor force, *1960 Handbook on Women Workers*. Designed as a sourcebook for employers, labor unions, counselors, educators, women's organizations, and other persons and organizations interested in the woman jobholder, the handbook offers basic information on employment and occupation, earning and income, education and training, age and marital status, laws affecting women workers, and organizations of interest to employed women.

Prepared by the Women's Bureau as Bulletin No. 275, the handbook is sold for 45 cents a copy by the Superintendent of Documents, Government Printing Office, Washington 25, D.C.

The deaf and everyday life

Gallaudet College, through a grant from the U.S. Office of Vocational Rehabilitation, is studying the effects of deafness on the pattern of everyday life and what relation this pattern has to the vocational and social adjustments of the deaf in the metropolitan area of Washington, D.C. The study will gather vital statistics about deaf persons—on family composition and structure, occupations, population movement, relations with the hearing, participation in social and community affairs, and needs for vocational rehabilitation services, such as counseling.

Gallaudet, the world's only college for the deaf, receives partial support from the Department of Health, Education, and Welfare.

Cooperative research seminar

Thirteen specialists in the field of mental retardation have accepted invitations from the Office of Education to attend a seminar on that subject at the University of Wisconsin, August 15-30. The seminar will be the first in a series the Office plans as part of its effort to improve the quality of research under its cooperative research program.

The thirteen participants, along with Office of Education staff, will be—

William I. Gardner, associate professor, Department of Psychology, University of Mississippi.

Herbert Goldstein, associate professor, Institute for Research on Exceptional Children, University of Illinois.

Rick F. Heber, coordinator, special education, University of Wisconsin.

Joseph F. Jastak, director, Guidance Associates, Wilmington, Del.

G. Orville Johnson, professor, special education, Syracuse University.

Herschel W. Nisonger, director, Project on Technical Planning in Mental Retardation, Columbus (Ohio) State School.

Joseph J. Parnicky, superintendent, Johnstone Training and Research Center, Bordentown, N.J.

Harold R. Phelps, director, Division of Special Education, Illinois State Normal University.

Maynard C. Reynolds, professor, educational psychology, University of Minnesota.

Sophia T. Salvin, principal, Washington Boulevard School for Multiple Handicapped Children, Los Angeles, Calif.

Richard L. Schiefelbusch, director, Bureau of Child Research and Welfare, University of Kansas.

Harold W. Stevenson, director, Institute of Child Development, University of Minnesota.

Edward F. Zigler, assistant professor, Department of Psychology, Yale University.

Dr. Nisonger will act as seminar chairman.

The seminar will emphasize these topics: Early identification, family training, selection and training, and social implications. For each the participants will explore and exchange ideas on effective research methods.

Address inquiries about the seminar to Robert H. Beezer, Office of Education, Washington 25, D.C.

PAU orientation program

Many representatives of the U.S. Government and of private industries are finding their visits to Latin America more fruitful because of an orientation program sponsored by the Pan American Union in Washington, D.C. Through arrangements with such Government departments as State, Agriculture, and Commerce, and with private agencies, PAU briefs travelers on the customs, policies, culture, and general background of the countries they will visit and on the Organization of the American States. The program also similarly briefs Latin Americans coming to the United States as students, trainees, or guests of the U.S. Government.

Among recent visitors to the Union for orientation are grantees of the Foreign Service Institute going to Costa Rica, students of U.S. history from Colombia, and a group of university rectors from Chile.

The Division of General Information of the Pan American Union conducts the orientation program.

Child welfare study

The Children's Bureau of the Department of Health, Education, and Welfare has made its most comprehensive study in 15 years of children receiving help from public welfare agencies. It has gathered data from 45 States on 220,812 children, 60 percent of those helped by public welfare agencies in 1959. The study found that—

► Divorce or separation of parents or desertion by one or both parents was responsible for 32 percent of child welfare cases, a rise of 8 percent over 1945.

► Death of parents had declined as a reason, from 23 percent to 14 percent.

► Proportion of married and unmarried parents remained about the same.

► Only 19 percent of the children were in families receiving public assistance. Of these, 14 percent were receiving help under the Aid-to-Dependent Children provisions of the Social Security Act.

► About 44 percent of the children were living in their own homes; 27 percent were in foster homes; 10 percent were in institutions (the number of children in institutions had declined).

The study also found that public welfare agencies sometimes helped children with behavioral problems at the request of a parent. Occasionally an agency acted to protect a child from parental neglect or abuse.

Helen R. Jeter, chief of the Child Welfare Studies Branch of the Children's Bureau, has written the report

on *Children Who Receive Services from Public Child Welfare Agencies*. The study is available for 25 cents a copy from the Government Printing Office, Washington 25, D.C.

Fulbright Program report

The educational exchange program under the Fulbright Act will soon be meeting challenges it is not fully prepared to meet, says the Board of Foreign Scholarships.

In a report to President Kennedy early this year the Board, which supervises the program, urges a careful review—and a revision—of the financial methods by which the program is underwritten. It calls for three improvements in particular: Greater flexibility in the conversion of funds, more freedom in the use of surplus currencies, and, under certain circumstances, dollars.

These are fluid times, the Board says; and fluid times need fluid programs. But the Fulbright program is bound to the availability of foreign currency funds provided from sales agreements and loan repayments. Some countries lack such funds; others are hampered by uncertainty that such funds will continue to be available. What is more, the U.S. requirement that such currencies be subject to annual appropriations restricts long-range planning.

Availability of certain foreign currencies should not be the principal basis for defining the scope of country programs, the Board says: "... programs should be justified on the basis of their contribution to America's position in the world community and the mutual objectives to be achieved through educational and cultural exchange, viewed over a long time period."

The Board also suggests changes in the program itself, such as expanded programs in Asia, Africa, and Latin America, and a change in public attitude, to a full recognition that educational and cultural exchanges can help us reach our foreign policy goals and should be a permanent part of our international relations.

Three Messages on Adult Education

At each annual conference of the American Association of School Administrators, the Adult Education Section of the Office of Education invites school administrators to attend a dinner meeting for considering the progress, prospects, and problems of adult education. This year the conference was divided into three regional conferences, and at each the Office of Education held its traditional meeting. At each there were two principal speeches—one a keynote address, the other a response by a school administrator. The three articles presented here are based on the keynote addresses: Dr. Corey's in San Francisco on February 24, Dr. Houle's in St. Louis on March 10, and Dr. Bortz's in Philadelphia on March 24. The responses were respectively from Stanley Warburton, associate superintendent of schools, Los Angeles; Wendel Pierce, superintendent of schools, Cincinnati; and Thomas Van Sant, assistant superintendent, New York City Board of Education.

1. Why educate adults?

ARTHUR F. COREY

Dr. Corey began his speech with an exciting picture of the kind of world we will be living in 25 years from now. It will be a world to adjust to, but it will also be a world to enjoy. Education can help us do both, as Dr. Corey here goes on to say.

PERHAPS NO ASPECT of human experience these days has so potent an effect on the responsibility and program of public education, including adult education, as technological change.

There will be unprecedented problems growing out of technological change to meet and solve in the next half-century. Population will at least double, unskilled labor will all but disappear, cities will grow to unprecedented

size, transportation and communication will erase sectionalism, and business will be even more concentrated. The span of life will continue to increase, and leisure will be available to all in spite of a continuing rise in the standard of living.

Much of this seems very, very attractive; yet the prospect is not entirely pleasing. These changes will bring massive changes in personal life. Unfavorable conditions accompanying these changes can make mental illness more prevalent than it is today. Crime and delinquency can increase with urbanization; softness—perhaps weakness—can follow decreased work time and increased leisure. The insistent demand for technical specialization may crowd out the broad personal development that comes through study of the humanities. The organization of economic and occupational interests into pressure groups may demand more and more of the total national output, possibly forcing us to continually resist a vast economic squeeze play which may tighten around education and social welfare.

These possibilities are not mere hunches or attempts to prophesy. History indicates that these changes will be inevitable unless our society does something not done by any previous civilization. Desirable trends must be encouraged and dangerous ones arrested. The only way tomorrow's problems can be solved today is by getting today's population ready to face them.

These changes will undoubtedly be accompanied by profound changes in the world power structure. Our ideological and economic conflict with the Soviet Union may ultimately find solution only in new organizational



Dr. Corey is executive secretary of the California Teachers Association. He has been a teacher, principal, and district superintendent in his native California. He is a member of the Educational Policies Commission of the National Education Association, of the American Association of School Administrators, and of Phi Delta Kappa.

patterns in world affairs. Perhaps a revolution in power structure is under way now and we do not know it. Our survival as a civilization may depend on its success.

The real power of a nation is found in the aspirations, the appreciations, and abilities of its people. The world has long believed that for a civilization to survive it is only important that it have a nucleus of intelligent, wise, and educated people to lead it. This idea, despite its persistence, is false. A few educated leaders cannot carry a civilization forward by themselves—a civilization is carried forward by the people.

Massive and rapid technological change, the social and economic problems of urbanization, the maintenance of national defense, and the reconstruction of world power are all important aspects of the conscious struggle for survival. In a free country these complex, baffling, and interrelated revolutions—and they are all revolutions—require much of the individual citizen. They require the understanding, knowledge, and skills that come from a quantity and quality education, heretofore expected of only a small minority.

Looking into tomorrow's world, we know it is unrealistic to assume that a man can get all the education he will need throughout his life by the time he is 18. From a vocational standpoint alone this will not be true. A typical production worker in the next generation may be required to retrain himself three or four times in the course of his productive lifetime. A single new invention or development can make obsolete the skills of a whole group of workers and demand an even greater number of workers with different skills. I remember that when blacksmiths started to fix Model-T Fords they had time to allow for a transition slow enough to accommodate readjustment. Tomorrow's changes will burst on us with dramatic suddenness, with stark tragedy for some. The only way to avoid tragedy is to provide continual opportunity for retraining. Even workers remaining in one field will find it constantly necessary to improve their skills and techniques or be left hopelessly behind.

Let's not forget that a man will need more education for his vocation than he will be able to get in shops and laboratories. More and more he will need an academic background in order to gain the skill and competence which industry requires. In my judgment, the increasing complexity of domestic and international problems will give unprecedented urgency to the promotion of adult education—not only education for national citizenship but education for world citizenship. We cannot entrust adult civic education solely to the commercial mass media industries. The continued popularity of forums and discussion groups on important public questions is evidence that many citizens are eager for this kind of education. We must provide more of it.

The effects of rapid increases in population and the narrowing of vocational specialization will make the avocational responsibility of adult education increasingly important. As specialization becomes greater, a man must know and do more and more about less and less, just to earn a living. As he narrows his field, he will increasingly need to find, for his mental health, satisfactions outside his work. In a highly industrialized urban economy, avocational interests are not luxuries: they are essential to collective and individual sanity.

I'd like to say a word about the arts, the fine arts in particular. By definition an esthetic experience, which the arts should give us, is one in which the experience is its own end, not what it produces. The arts have one commodity in common: beauty in its various forms—form, color, sound. But beauty is not in the object, it's in the one who sees it. It is basically a qualitative, not quantitative, experience.

All too much of what we do in education, including adult education, is quantitative. We have come to believe that we can measure the effectiveness of an educational program by measuring the quantity of knowledge a student can put on an examination paper. The qualitative aspects have almost escaped us. It is the fine arts that give us quantitative experience, that stir the emotions. It is the feelings that give an esthetic experience its quality. We must remember that men act by a combination of thought and emotion. The more important the thing we are doing, the heavier the admixture of emotion with thought. Yet those of us in education have often been content to talk about and work for the intellectual objective only, considering the emotions as something not to be mentioned in respectable society. Man has been given a world of beauty and order, and I think it possible that virtue in man is best expressed in the perfecting and appreciation of that beauty and order. A functional acquaintance with the fine arts, at any age, is the best assurance against the gradual dimming of radiance and beauty in our world. Man's most fundamental sin may well be his casual acceptance of ugliness when he might have beauty. The arts are not only important to mental health, they have spiritual and moral value, too.

In the future, traditional programs in citizenship and literacy will be smaller parts of adult education than they may have been, although they will still be significant for those who need them. There'll be more room for fine arts, for foreign languages, whose importance will continue to grow in keeping with our role in world affairs. Academic courses in science, mathematics, English, and history will be increasingly important as business puts more and more emphasis on the need for general intellectual competence.

Discussion of adult education leads us to a key question.

What are the defensible limits of what public education ought to do for our people? It seems to me that there has been all too little discussion within the profession and with the public of the defensible purposes and limits of public education. Does a defensible definition of the services of the public school justify giving support to adult education? I think that it does. I think it must. Adult education is rightfully a part of the public school system.

The Commission on Educational Policy of the California Teachers Association, which tries to do for State issues what the Educational Policies Commission of the National Education Association does for national issues, outlined a basic philosophy for our public school system a few years ago. Its statement concludes, "In keeping with these principles it is the obligation of the free public school in America to provide for every person the educational opportunity which will enable him to assume proudly his responsibilities as an American citizen." It does not say, give this opportunity to every American citizen under 18 years of age, or to every American under 21, or to every American under 21 who doesn't go to college. It says "every American." I think the profession in California is prepared to stand united on this thesis.

Attempting to define the defensible limits of public education in a speech last spring before the NEA conference on school finance, I said, "Every American child should receive nine years of elementary education, including a year of kindergarten. Virtually every child should receive four years of high school education, and junior or community colleges should offer two additional years of education to all who desire them. The school year should be at least 180 days for all, and should be supplemented by an additional summer session of at least 25 days for those who wish to attend. Any American, at any age, should find academic, vocational, and avocational opportunities through free public adult education connected with the public schools." I went on to say that guidance, psychological, and psychiatric services ought to be available for every segment and at every level of education, including adult education. In other words, although many aspects of this total program are absent in many communities and even in many States, we, as a united profession, must never permit an attack on any segment of this total program to go unchallenged.

Unfortunately, adult education is too often considered marginal—rather like kindergarten at the other margin: nice but not necessary, pleasant but expendable, something to be cut at the first crisis.

For the last year and a half California has had a citizens commission studying the State's public school system. Its work has been in some respects unfortunate. We have every reason to believe, listening to its discussions, that

one of its recommendations will be that adult education ought to be cut to give more money to the education of children since we are having a crisis in elementary and secondary education. For the committee, adult education is marginal, nice but not necessary.

What I am trying to say is that a united professional stand is necessary. I am confident that if we permit the critics of adult education to tear us apart, and take us on one at a time, they will take us a long way down the road. For example, a few years ago California had a crisis in the financing of adult education. I am proud to say that throughout this conflict the California Teachers Association stood solidly behind the thesis that adult education is an integral segment of the public school program and should be financed like any other segment. We would have won the fight had not some other segments of the educational profession said, "Oh, we ought to give a little." They gave to the extent that the State no longer treats a unit of average daily attendance in the adult school like a unit of average daily attendance in the day school, on the assumption that the former is not as important as the latter. Maybe tomorrow someone will say that we should not treat a unit of average daily attendance in the kindergarten the same as a unit of average daily attendance in the first grade because the kindergarten is slightly inferior. Next, someone may say that we should only count physical education in the high school as a half hour because "after all, they are outdoors playing." Once we permit the line to be broken, we don't know what we may lose.

I am saying that the time has come when the organized profession all over this country must face the fact that in tomorrow's world we as a nation simply cannot keep up with other nations or fight the battle for survival if public education stops with the high school and junior college. The profession, therefore, had better fight now for adult education—and there are indications everywhere that we will have to fight because adult public education is considered marginal in too many places. If we permit the leaders in adult education to fight this battle alone, they'll lose it. They will lose even where adult education is already well established.

On the other hand, if those of us in general education—the teachers and administrators in the elementary and secondary schools—are going to join in the battle and say, "O.K., we will stand to defend this program," then we must expect something of adult education leaders, too. We must expect, first, that adult education leaders will work in professional organizations, become a part of the professional team. I know this isn't easy. It will create problems. For instance, I know that retirement systems must be interpreted to cover the man who teaches 2 hours

a week, and that in certification programs we sometimes find differences about what the certification requirements should be for the man who teaches upholstery two nights a week.

I once had an instructor in public speech who said, "Get up and tell them in one minute what you are going to say, take 30 minutes to say it, and then tell them in one minute what you said." And so, in conclusion, here's my message again; adult education in our fast-changing world is absolutely essential to survival. If we are not only to save adult education, but to develop it, we must have a united profession to do battle. Let's get on the team. Let's do the job.

2. *A time for creative pioneers*

CYRIL O. HOULE

In summarizing his speech, Dr. Houle tersely states these points: There are many kinds of adult education programs, but they are successful only if they make people "more skilled, sensitive, knowledgeable, and wise," and if they treat their students as adults.

ADULT EDUCATION in the public schools becomes significant only when school administrators, particularly superintendents, understand two significant points. The aim of adult education should be the same as that of childhood education—to educate. The means of operation should be different.

Many schools throughout America, in all kinds and sizes of communities, serve adults. The programs they offer are determined by the community, guided by its leaders, and shaped by the philosophy and competence of teachers



Dr. Houle, professor of education at the University of Chicago, has had extensive experience studying and administering adult education in this country and in Europe, Africa, and the Caribbean. He holds honorary doctorates from Rutgers, Florida State, and Syracuse Uni-

*versities. The University of Wisconsin Press has just published his new book, *The Inquiring Mind*. In this article his point of view is that of a teacher of those who direct and foster adult education.*

and administrators. In general, one or more of five types of programs are offered:

Elementary school, secondary school, junior college, or Americanization courses for those who did not have adequate education in youth.

Extension of subject-matter areas, such as trade and industrial, agricultural, homemaking, and physical education.

Parent education based on the responsibility of the home and school for the child.

Diversified classes and activities, usually in high schools or community colleges.

Programs to improve the community by analyzing its problems (perhaps in collaboration with community leaders) and offering services to remedy deficiencies and strengthen assets.

In addition, community groups may offer organized and systematic programs in school buildings.

Programs are successful only when developed in the belief that education can improve the quality of life for the individual and for society. The function of an adult education program is *to teach*. It is not to entertain, to make money, to court the favor of community leaders, to increase the use of school buildings, nor to create a favorable image of the school system in the eyes of the public. These functions may be byproducts, but they are not the chief end of adult education.

There is little need here to review the reasons why adult education is important and to suggest the benefits that would result if all Americans were more skilled, sensitive, and knowledgeable, and wise. But it may be useful to point out that research has found that adults learn most things better and faster than children, that performance on tests of mental ability increases with age, even with those who had high performances in youth, and that disuse, not age, is the chief reason for loss in the ability to learn.

Adult education is one of the great frontiers in public education. The rewards of adult education in individual satisfaction and community improvement would appear to be very great. One such reward, and not the least significant, is the betterment of education for children. Lack of money, time, skilled leadership, and proper physical facilities, to be sure, create problems. But community after community is solving these problems with ingenuity and resourcefulness, proving that our educational leadership still has the pioneering spirit responsible for making our schools for children universal.

But providing universal education for children has so absorbed us that educators tend to use the same practices in teaching adults that they use in teaching children. It would be hard to imagine a conference on school administration that was conducted as though it were a high

school class, yet the principals and superintendents who would be quick to resent such a procedure sometimes expect adults to submit to it in an evening school. Fortunately, more and more schools are recognizing that programs for adults must be conceived and developed in terms of the maturity of their students. Here are a few of the special principles that apply.

1. The teacher of adults, unlike the teacher of children, has no general authority over his students but must win their respect, and their continued attendance, by his continued competence. Teachers of adults must, therefore, be selected, trained, and supervised with unusual care.

2. The school's counseling service for the adult student must recognize his special interests (and possible tensions) and help him to select courses or activities wisely.

3. Adult education programs should be developed cooperatively with other community institutions and citizen groups. The public school system is the one educational agency that serves the whole community, and its programs for adult education and its leadership in coordinating all community adult education should reflect that fact.

4. The program should be designed and administered on the basis of available research findings. Research in adult education is not yet extensive, but there is enough of it to require that the adult educational administrator should be especially trained for his work.

5. The spirit of the program should be that of the community center, not that of the classroom. Proper attention to an informal approach and to the amenities that adults follow in their relations with one another will help produce a contagious enthusiasm that will be felt throughout the program and the community.

6. Adult education is for everybody. The program should be so attractive and so broad that every resident of the community will feel it appropriate and desirable to attend. It should offer a variety of courses and activities, ranging from those that teach simple skills to those that challenge the best and deepest intellect. In a modern community there are many degrees of sophistication. There is no reason to peg the program at any one level. Superintendents of schools and members of school boards should themselves participate in adult educational programs, not out of a sense of duty, but because the program is so vital and interesting that they do not want to stay away.

These principles are far from Utopian: all of them can be found in practice in some schools today, including those in small communities with meager resources. The use of these principles will increase as more and more administrators recognize how important it is for the public school to extend its scope to meet the educational needs of adults in the community.

3. The adult's potential for growth

E. L. BORTZ

A physician, familiar with the physiological side of aging and its close connection with intellectual, emotional, and spiritual growth, sees education of the adult as a process of growth that begins at birth and continues until death. Here, some highlights from his speech to catch the essence of his positive, constructive point of view

IN OUR VERY CONSIDERING of the adult's potential for growth, we are implying that education should be a lifelong experience. We are implying that its discipline should continue to the very end of a man's life and bring to full flower his talents, so that, as he translates them into service, they will yield unceasing satisfaction both to himself and to the society he serves.

THE BEST FOUNDATION for adult education is the one that is laid when the adult is still a child. We know now that the basic ideas of science and the humanities can be grasped by children much earlier than we once thought. The problem is this: to offer these ideas so that the child will understand them. If we can do this, the child will have a strong base on which to build as he grows older and follows a continuing course of instruction.

IDENTIFICATION OF SELF with greatness—this is the heart of growth through all the fascinating phases of life. The man who makes contacts with the greatness available to him in literature, history, the arts and science, religion, and in association with the brilliant minds of his contemporaries, finds his own life growing richer every day, more effective, more meaningful. This emphasis on the excellent, on the first-rate in human flowering and



Dr. Bortz is chief of Medical Services "B," The Lankenau Hospital, Philadelphia. He is assistant editor of The Cyclopedia of Medicine, Surgery, and Specialties and author of Diabetes Control and numerous articles on nutrition, metabolism, and geriatrics. He is president of the American Geriatrics Society and last winter served as a consultant to the White House Conference on Aging.

human relationships, must be maintained throughout the educational process, from childhood on.

This is an emphasis on content, which our modern society has been inclined to neglect despite all its professed respect for education. As long ago as the days of ancient Greece there were great scholars who had the insight and the creative imagination to grasp the fundamentals of natural law; and in the intervening centuries there has been a phenomenal increase in knowledge. Now we live in the age most richly blessed with information bearing on the health, happiness, and significance of the human being. But of all this knowledge we have used and applied only a minute portion. What is worse, we have chosen, for the most part, only the trivial and the inconsequential.

The shackles that have bound the human spirit to the inconsequential and the trivial must be cast off; but they can be broken only by daring leadership in education. Here is the challenge to the school administrator, who, as head of the school, can open doors for people of all ages to a more abundant, a more glorious, life.

WHEN IS A WORKER too old to get a new job or win a promotion? It is a startling fact that in many places, for many jobs, 40 years is the dividing line. At that age, says James P. Mitchell, formerly Secretary of Labor, men and women come face to face with at least four prejudices against older workers:

1. They are less productive, cannot maintain the pace.
2. They are set in their ways, are unable to adjust to the rapid changes in modern industry.
3. They are too costly to the employer in terms of pension and welfare plans.
4. They are prone to accidents.

These are all misconceptions, Mr. Mitchell says, and should be immediately dispelled. To each one he makes answer:

1. Department of Labor studies have convincingly demonstrated that a large proportion of older workers can and do outperform the young ones; that older workers, particularly those between 55 and 64, are more consistent in the excellence of their performance.
2. A sampling of 160,000 men seeking work has shown that the worker over 40 has superior occupational qualifications but that his big problem is his skill, which once was useful but now is going out of date. According to psychologists, however, this is only a temporary problem: skills per se are interrelated, and a man who has learned to do one job well can learn another more easily than the man with no experience at all.
3. It is true that for some older workers the immediate

cost of pension and welfare plans is greater than for the average young worker; but the ultimate cost will not be markedly more.

4. Records of many individual companies covering a wide range of occupations show that the old worker is not more prone than the young to accident. In fact in many kinds of jobs he has a better safety record than his younger and more daring coworker.

Mr. Mitchell urges leaders in all walks of life—employers, community leaders, union leaders, trade group officials, and all informed citizens—to emphasize the facts of life concerning the productivity of older men and women. We live in changing times, in which the maturing laborer, too, is changing. Not only is he living longer, he is staying healthy and vigorous longer and able to gain invaluable new experiences. Therefore he has a growth potential that is of basic importance to the vitality of the Nation. It is time that we examined his problems, took stock of his resources, and recognized him as the asset he is.

AT LAST we are beginning to see aging in its true perspective—as a part of the fascinating and continually changing process of development within the human body, a part of the unfolding of the life pattern which goes on year after year, from childhood to the summit of maturity—a thing of marvelous beauty.

Until recently we have demonstrated no special concern about man's potential for growing with the years. We have put most of our emphasis on the negative aspects of aging—on the degeneration, the deterioration, and the decline. Now, however, we have begun to direct our attention to *development* and *maturation* as the basic normal factors in aging, as steps in a definite biological sequence. The wonder of the world is opening before us, and exciting possibilities are appearing for man's betterment. Just as we have extended the lifespan and increased the vitality of vegetables, flowers, fruits, and animals, we will increase the vitality and length of the life of man. The time has come for a deep and persistent study of the ways in which we can help man maintain his "vehicle"—his physical body and tissues—in a condition of sensitive responsiveness to life.

TO MAKE THE MOST of his life in its closing years, a man must keep the enthusiasm of the young. He must be happily and hopefully expectant of what is still in the future, hold to the idea of new and fresh possibilities, refuse to accept defeat, continue the fight against deterioration, and maintain high hopes. He must support his will to live with high conceptions. He must condition his body so that he will have the feeling of vigor that is so great a stimulus for the old person. All this is the essence

of dynamic existence; in it lies the secret of man's power to sustain himself as he enters his late years.

IN PURSUIT of worthy goals, men best preserve their zest for life. History is full of examples of the intimate relation between the demand for high action and the individual's ability to respond.

Four times in his life George Washington retired from public duty only to be called back to another high and important service. Each time, as he exerted himself to meet his new assignment, he attained a stature of which he had not thought himself capable.

Winston Churchill was contemplating retirement when the Second World War brought him back into public service, where he became a brilliant example of courage and determination for the whole world to follow.

Lord Balfour retired from active politics at 63 but returned to active duty at 68; at 73 he was representing his government in the League of Nations, and at 77 he was named president of the Council in Mr. Baldwin's cabinet. Sarah Bernhardt was still on the stage at 77; Goethe completed *Faust* at 82; Verdi wrote *Falstaff* when he was 80, his *Requiem* when he was 84. Titian painted both the *Transfiguration* and the *Annunciation* when he was 88 and continued to take commissions until his last, his 99th, year. The most famous of all violin makers, Stradivarius, was still giving the world fine instruments in his 80's. And many a centenarian has demonstrated that it is possible, despite the ebbing of physical strength and agility, to retain intellectual power and enthusiasm past the 100-year mark, even until the hour of death. There is no doubt about it: a vigorous interest and a high specific motivation is the best stimulus for a useful old age.

SOME PERSONS seem to reach their greatest productivity in the early part of life, when, through a burst of energy and intellectual brilliance, they achieve some great accomplishment; afterward they make a rapid descent into the ordinary stream of life. Others take somewhat longer to reach their peak, are richly productive for a while, but then, like the first, also descend to relative obscurity. But there are some who maintain their high performance throughout their lives.

What explains these differences? In the first and second kind of person there is a parallel between the development of the body and the development of the spirit. In the third, however, productivity seems to be independent of physical state or chronological age. There are certain types of work, of course, which require the strength and vitality that are attributes of youth. And the relation between the physical and the psychic, though always intimate, varies from individual to individual. Some persons have a strong physique but their emotional and mental

growth seems to lag behind the physical; they have a certain rigidity early in life, but in their later years they seek a flowering of the emotional, intellectual, and spiritual sides of their lives. Others seem always to retain the plasticity that is necessary for adapting to change. These persons are always eager, even impatient, to move on to new experiences; they seem to sense the rhythm of growth within themselves; they always find action thrilling, even when they are old.

FOR THOSE who understand the differences between periods of human existence and are ready to accept the changes that come with each one of these periods there is a great possibility for making the most of what is in the making.

There is intrinsic in the human being a dynamic power that enables him to rebound against disease, deterioration, and decay; a power for preserving vitality, for healing wounds, for overcoming obstacles. This is the power that explains why certain individuals maintain life, vitality, and enthusiasm in the face of odds and obstacles.

We have clarified the nature of the physical individual, but we have found it more difficult to understand and measure the intangible power within a man which moves him in the direction of his own particular destiny. But now, supported by the information science has uncovered, we are on the point of discovering this power, of seeing clearly the nature of the dynamics of human existence.

This is one of the greatest challenges to the educator of adults. With zest and enthusiasm he must search for a better understanding of those innate qualities of individuals which can enrich and invigorate their lives in their late years.

IN THE LAST ANALYSIS all these thoughts focus on education—on man as teacher and man as pupil—for they are replete with challenge for the educational process.

Above all, we need to establish a progressive educational program that will increase the opportunities for growth, development, and maturation of all citizens in their middle and late years. But it must be a program which is as much concerned with the young as with the old; for true education knows no line of demarcation between the different periods of a man's life.

It remains for us to identify specifically those goals and ideals which represent the real, the enduring, values of human existence, and then to fashion the curriculum accordingly. Teachers and leaders of the nation bear first responsibility for helping both the young and the old to a clear understanding of the aims of human society, to an appreciation of the influences which give life meaning, direction, and significance.

School finance as a part of public finance

IT IS DIFFICULT for most of us who are concerned with financing education to keep in perspective the importance and needs of other government-supported services. Like other groups of finance people who daily work with the problems of one particular service, we naturally think of our own specialty as being all-important. And in our preoccupation we are likely to forget that many persons are continuously pressing for increased funds, that only if funds were unlimited could revenue be allocated on the basis of need without complicating interrelationships and making a great many people dissatisfied.

We can, however, get some perspective on the financing of government services by examining two broad aspects of the allocation of resources: (1) The relationship between the private and public sectors of the economy and (2) the competition, within the public sector, among such services as education, health, and welfare, and highway.

Since additional resources from the private sector will not always be available to education when they are needed, it is important for us to understand the problems and facts of relationships among public services. These relationships we can see by comparing expenditures for public education in the last half century with those for other programs and with total general government expenditures, which include all except direct expenditures for utility purposes, liquor stores, and insurance trust systems. Because dollar increases were large, even for services whose proportion of the total was decreasing, comparisons are based on percentages.

Total general expenditures of Federal, State, and local government were 79 times greater in 1959 than in 1902, but some government-supported services showed even sharper rises: Expenditures for national defense and international relations combined were 293 times greater; for natural resources, 544 times greater. For education, they were only 70 times greater; for public welfare and health they were smaller still. Except for these six services and the interest on the national debt, all other major services have either just held their own or declined in relative position.

Defense expenditures

In a sense it is unrealistic to compare expenditures for national defense with those for other services because demands for defense have first priority and are therefore not truly competitive. When conditions that determine defense needs require a greater outlay, other services must compete for what remains. In times of crisis the govern-

ment has usually derived the additional resources it needs for defense from various segments of the economy through controlled allocation of resources (voluntary and involuntary) from civilian production and through increased taxation. This practice has usually reduced the percentage of total government outlay for other services, but not their actual dollar expenditure. For some services the rate of increase has slowed, and, if inflationary factors are considered, even some services whose rates have not been slowed have suffered considerable losses. But the point for us to remember is that reduced or increased expenditure for defense has a direct influence on the resources available for nondefense expenditures. (The term "non-defense" as used here refers to all general public expenditures except those in the Bureau of the Census category "national defense and international relations.")

Nondefense expenditures

Though a comparison of expenditures for the various services of government, excluding national defense and international relations, may be somewhat artificial, it is worthwhile. Once we have excluded the expenditures for defense and international relations, we can more easily analyze the social forces affecting the other expenditures since they are more likely to be internal forces than external. We cannot, however, completely exclude external influences, for the demands of defense and international relations affect domestic services indirectly as well as directly. For example, they may increase or decrease the social demands for these services or modify the ways in which they operate. We are particularly aware of these influences in education at all levels—for example, defense requirements for educated manpower led, in 1958, to the National Defense Education Act.

Between 1902 and 1959 six nondefense services either



Dr. Alford joined the staff of the Office of Education in June 1960 as specialist in taxation and public finance, in the School Finance Section. Before then he had taught political science for 8 years at the University of Maryland and had served as consultant to several committees and commissions examining tax structure and revenue proposals at State and local levels.

received an increasing percentage of the total outlay or held their own.

Education: Expenditures for education more than held their own: they rose from 18.3 percent of the total to 23.9 percent.

Natural resources: Expenditures increased from 1.2 percent to 12.2 percent of the total. The agricultural subsidy programs that were begun in the 1930's account for the sharp rise here.

Parks, housing, and highways: Expenditures for parks and housing were the same for both years—2.1 percent. Expenditures for highways rose slightly—from 12.4 percent to 12.8 percent.

Health and welfare: Expenditures for health and hospitals rose from 4.5 percent to 6.8 percent and for public welfare from 2.9 percent to 5.4 percent. The figures for public welfare, do not, however, include the outlay for Old-Age and Survivors Insurance, which amounted to \$9,358 million in 1959. This trust fund represents a government expenditure, is supported by a tax, and influences government budgeting through its effect on revenue. With a few exceptions, the present tax on the fund is 6 percent on the first \$4,800 of income of all persons covered. Since 90 percent of all employed persons are covered, this means that a substantial flat-rate income tax is being applied in addition to the regular income tax and, in effect, that a part of the income tax is earmarked for this particular program. Even if the program is on an actuarially sound basis, the scheduled tax increases needed to support it subtract from the main source of general revenues and therefore affect other programs.

(At this point let us pause to examine the effect of earmarking taxes for particular purposes, whether by Federal, State, or local government. At the Federal level two services, highways and the Old-Age and Survivors Insurance, are the only ones supported by earmarked taxes.

The advantages of earmarking taxes are easily recognized: A particular program supported by earmarked taxes has an assured source of income; it does not have to compete with other programs for funds. The disadvantages are often overlooked:

(1) The earmarking of taxes for a particular program represents a limitation on its expenditures. Educational services, for example, may be limited because local educational revenues are almost always tied to an earmarked tax—the property tax. Even without legal or constitutional restrictions on the tax rate, educational services may be limited because of the difficulty of increasing the yield of an unpopular tax. Earmarking of other taxes—the sales tax, for example—may have a similar effect.

In fairness we should note that the earmarking of income for old-age and survivors benefits does not have the disadvantage that it does in other programs. Because of the specific future obligations incurred under this program, once it has been established, we can assume that the revenue needed will be provided even if it is necessary to go beyond anticipated tax rates. If there are limitations, they will appear in the legislative program planning, which is based on anticipated future revenue.

(2) The earmarking of taxes makes it impossible to finance a program on the basis of its needs or the total revenue needs of the government. Earmarking therefore fragmentizes the allocation procedure with advantages and disadvantages to programs because of their association with particular taxes, most of which are not directly related to the service provided. Highway services, for example, may be reasonably related to motor vehicle taxes, but the tax benefits go to others besides the operators and owners of vehicles.)

Other nondefense services: Except for the six services already listed, the nondefense services received a decreasing percentage of total expenditures. Only one of these is a major item—expenditures for veterans, which, it may surprise some persons to learn, decreased. Here, however, the figures may be misleading: the large expenditures for the education and hospitalization of veterans are included in their appropriate categories. Most of the other decreases are included in the table under the miscellaneous category of “others,” which covers such services as police and fire protection, postal service, and nonhighway transportation.

Interest on the debt

Interest on the Federal debt is a major item of expenditure. Since 1902, expenditures for interest have climbed from \$97 million to \$6,959 million, or from 6.9 percent of the total to 9.2 percent.

Just as we have excluded from our analysis all defense expenditures we could also exclude interest on debt—most of the national debt is directly related to defense—because of its special status. There is, however, an important difference: Interest on the debt is a much more stable item and is not generally subject to wide fluctuation. Its influence is therefore easier to calculate.

Interest on the debt represents a fixed charge. Its competitive position is assured, and its effect depends on how we finance the other services. Borrowing money for school construction is a legitimate financial practice, but it is sometimes a means of avoiding or postponing current revenue problems, which may compound future problems.

Significance to education

What significance do all these facts have for education? First, we see that public education is the largest single nondefense program. It does not, however, have the same priority as defense, and, as a consequence, pressures to increase expenditures for other programs may result in reductions for education. This means that justifications for educational expenditures are subject to careful scrutiny and that persons charged with justifying expenditures are obligated to prepare the best possible estimates, to be well informed on the trends and needs, and to present facts with clarity.

Secondly, the tying of educational expenditures to a single unpopular tax, the property tax, may obstruct educational progress. It puts educational leaders into the position of defending the particular tax rather than the

educational program. Instead of being narrowly concerned with our immediate problems we should direct our thinking to general revenue problems, to a flexible system, and to a balanced total revenue program. We should remember that the need for educational funds tends to change more rapidly than officials can tailor tax programs to meet it.

Finally, we need to keep fully abreast of the most efficient techniques in modern education. In spite of the current public interest in improving our schools, more than likely we will have to justify our needs as carefully in the future as in the past. Under these circumstances progress will depend on our ability to make available resources go farther than in the past as well as the extent to which we manage to obtain a reasonably fair share of our economic resources.

General governmental expenditures, Federal, State, and local, by service, in specified years from 1902 to 1959

Service	1902	1922	1932	1942	1952	1959
PERCENT OF TOTAL (excluding defense and international relations)						
Education	18.3	21.5	21.1	15.9	22.3	23.9
Highways	12.4	16.2	16.0	10.4	10.9	12.8
Natural resources	1.2	1.8	3.0	14.6	7.5	12.2
Hospitals and health	4.5	4.4	5.3	4.2	7.4	6.8
Public welfare	2.9	1.6	4.0	7.6	6.6	5.4
Veterans	10.0	6.3	8.4	2.8	6.0	4.8
Parks and housing	2.1	1.1	1.3	4.4	2.8	2.1
Interest	6.9	17.2	12.0	9.4	11.2	9.2
Other ¹	41.9	29.9	28.9	30.6	25.4	22.8
Total ²	100.0	100.0	100.0	100.0	100.0	100.0
MILLIONS OF DOLLARS						
Education	258	1,713	2,325	2,696	9,598	18,119
Highways	175	1,296	1,766	1,765	4,714	9,726
Natural resources	17	140	326	2,468	3,252	9,249
Hospitals and health	63	352	583	714	3,199	5,183
Public welfare	41	128	445	1,285	2,830	4,076
Veterans	141	505	928	481	2,570	3,645
Parks and housing	29	86	147	750	1,199	1,567
Interest	97	1,370	1,323	1,591	4,814	6,959
Other ¹	592	2,389	3,184	5,178	10,928	17,304
Total, excluding defense and international relations ² . . .	1,413	7,979	11,027	16,928	43,104	75,828
National defense and international relations	165	875	721	26,555	48,187	48,389
Grand total	1,578	8,854	11,748	43,483	91,291	124,217

¹ Other includes such things as police and fire protection, postal service, and nonhighway programs.

² May not total 100.0 because of rounding.

Sources: U.S. Bureau of the Census, "Historical Statistics of the United States, Colonial Times to 1957," Washington, D.C., 1960, Series Y413-439; U.S. Bureau of the Census, "Governmental Finances in 1959" G-GF59-No. 2, September 30, 1960, Table 4.

Librarians seek meaning in the future

LIBRARIANS ARE NOT WAITING for time to call the changes in their profession. Instead they are going out to meet the future, using all the facts at their disposal to discover the changes—demographic, social, and economic—that will affect the people of the United States in the next 20 years. These are the changes which will affect libraries, librarians, and library services; and the librarians mean to be ready for them.

They are working at it now, in many quarters, in all parts of the United States; and next April, on the campus of Western Reserve University, in Cleveland, they will pool their resources in an institute, where they will consider changes necessary in the education of a librarian. Practicing librarians will be there, from libraries of all kinds—school, college and university, public, and special—as will members of faculties and administrative staffs of library schools in colleges and universities.

Joint sponsors of the institute are the Library Services Branch of the Office of Education and the School of Library Service at Western Reserve University. Planning is being done by a national committee: John G. Lorenz and Frank L. Schick, Library Services Branch, Office of Education; Jesse H. Shera and Ruth Warncke, School of Library Service, Western Reserve University; Harold Lancour, Graduate School of Library Science, University of Illinois; James J. Kortendick, Department of Library Science, Catholic University of America; and Sarah R. Reed, the American Library Association.

Background papers for the institute are already being written, in the form of articles to be collectively entitled "The Future of Library Services: Demographic Aspects and Implications." They will be published this year by the University of Illinois Library School, in the July and

October issues of *Library Trends*, which are being edited by Frank L. Schick, assistant director of the Library Services Branch, Office of Education.

Into this collection of papers has gone more than a year's work by 22 librarians, educators, and other specialists, who have met twice—in October 1960 and January 1961—to coordinate their contributions. The lead article is by Philip M. Hauser, former deputy director of the U.S. Census Bureau and now chairman of the sociology department and director of the Population Research Center, University of Chicago. Members of the Library Services Branch of the Office of Education are serving as resource staff; and grants from the Grolier Foundation and from the Council of Library Resources, Inc., a subsidiary of the Ford Foundation, will help to pay special expenses.

PHOTOGRAPH: Contributors to the forthcoming articles on the future of library services, with staff of Library Services Branch, Office of Education. Left to right, seated: Elizabeth E. Hamer, Library of Congress; Eileen Thornton, Oberlin College; Philip M. Hauser, University of Chicago; Frank L. Schick and Rose Vainstein, Office of Education; Germaine Krettek, American Library Association; Margaret E. Dunleavy, Office of Education. Standing: Emerson Greenaway, Philadelphia Free Library; Ralph M. Dunbar, former director, Library Services Branch; Eugene B. Jackson, General Motors Corp.; Lewis C. Branscomb, The Ohio State University; Nathan M. Cohen, Office of Education; Robert Frase, American Book Publishers Council; Paul M. Berry, Library of Congress; Herbert A. Carl and John G. Lorenz, Office of Education; Walter T. Brahm, Ohio State Library; Paul Howard, U.S. Department of Interior; James J. Kortendick, Catholic University of America; Ransom Richardson, Flint (Mich.) Public Libraries; and John C. Rather, Office of Education. Not present: David M. Clift, American Library Association; Sara Fenwick, University of Chicago; Mae Graham, Maryland State Department of Education; John D. Henderson, Los Angeles County Public Library; Mary Helen Mahar, Office of Education; John L. Nolan, Library of Congress; Jesse H. Shera, Western Reserve University; Elizabeth O. Williams, Los Angeles City Schools.



Two billion dollars in a decade: 1

IF ANY LAW is passed by the Congress this year to authorize Federal aid for building and operating public elementary and secondary schools, it will not be the first. For 10 years now, plus some months, two laws have been in operation which together have provided nearly \$2 billion to individual school districts. About half of this money has been appropriated for constructing buildings; the rest, for meeting current operating expenses, which includes teachers' salaries.

These two laws were enacted a week apart, in September 1950, by the 81st Congress. They have always been known by only their numbers—Public Law 815 and Public Law 874—for they have not had the advantage of a definitive name like the one the 85th Congress gave 8 years later to Public Law 864—"The National Defense Education Act of 1958." In the Office of Education, however, which administers the funds for 815 and 874, they have gone by the name of SAFA, an acronym formed from key words in this identifying phrase, "School Assistance to Local Educational Agencies in Federally Affected Areas."

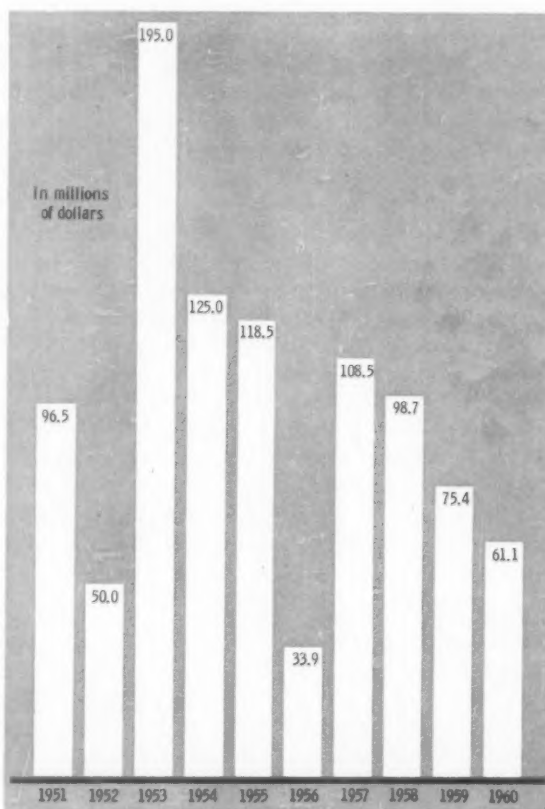
The words "in federally affected areas" define the limits of these two laws: both laws authorize payments to local school districts principally on one basis only—that within the State or near the district there is Federal property on which school children live or their parents work. Any school district applying for assistance under either law must identify this property and also must show that the existence of this property has put a certain amount of strain on the local schools, either because it has cut substantially into the total tax "take" or because it is responsible, to a degree, for the presence of a substantial number of school-age children. The laws also authorize payments to the Federal Government itself, to help it build and operate schools on Federal property, such as military bases, forts, and airfields, wherever State or local educational agencies are unable to do so.

The full history of SAFA is being written in the reports which the U.S. Commissioner of Education makes each year to the Congress. These reports include the name of every local educational agency receiving funds under each of the two laws.

The 10th annual report, sent to the Congress in January of this year, not only covers the tenth year in detail but gives a summary of the entire decade. Like the earlier reports, it has been published for public distribution; it is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., for \$1.

PUBLIC LAW 815

In the first 10 years of Public Law 815 the Congress has appropriated \$962.6 million for assisting in the construction of "minimum school facilities" for federally connected children. (The term "minimum facilities" has been interpreted to mean instructional and auxiliary rooms together with initial equipment, but not single-purpose auditoriums and gymnasiums or built-in spectator space.) Most of this money has been reserved for local school districts which have been eligible to receive aid on one or both of these grounds: (1) They have substantial increases in school membership as a result of Federal activities; (2) they have a substantial number of pupils who reside



Public Law 815: Federal funds appropriated for assisting local educational agencies of the Federal Government to construct facilities for public elementary and secondary schools, 1951 to 1960

Public Laws 815 and 874

on tax-exempt Federal properties (principally Indian reservations).

The greatest activity under Public Law 815 took place in the first half of the decade, when an exceptional effort was needed to meet the backlog of schoolhousing needs that had accumulated during World War II. School districts applying for assistance in the first years of the program were permitted to go as far back as 1939 to count their increased enrollments of federally connected children.

The first 2 years of the program brought out such overwhelming evidence of need that in 1953 the Congress appropriated \$195 million, the largest amount it has provided in any 1 year. In the second half of the decade, with much of the backlog met, funds have been provided

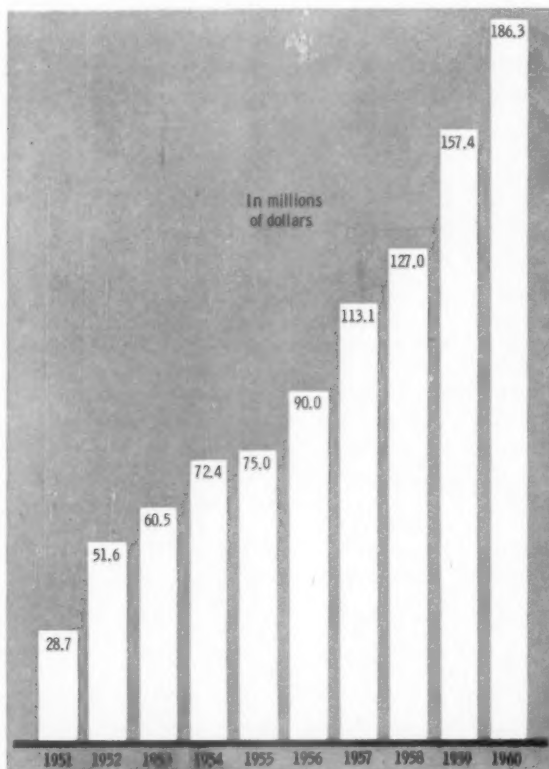
in decreasing amounts. All together, the first 10 years under the act have seen \$948.5 million reserved for 4,733 construction projects (out of 8,290 filed), to provide an estimated 50,511 classrooms for 1,468,139 children.

By the end of this fiscal year the current program for constructing military family housing on Federal property will be virtually completed; and it is reasonable to expect that, if no marked changes are forthcoming in the nature and location of Federal activities, the need for assistance for school construction in federally affected areas soon will level off.

PUBLIC LAW 874

Last year—fiscal year 1960—3,963 local educational agencies in the 50 States, Guam, and the Virgin Islands applied for Federal funds under Public Law 874 to help them defray current expenditures for their schools. All but 142 were found eligible. The total amount to which they were entitled—\$177.6 million—was based on their having more than 1½ million federally connected children—15 percent of their total average daily attendance. But federally connected children were not the only beneficiaries: the recipient districts put the funds under Public Law 874 with their other funds for current expenditures and thereby passed the Federal aid along to all 10 million of their pupils. In other words, one out of every three children in the Nation's public elementary and secondary schools benefited. Ten years earlier, in 1951, only 2.9 million pupils benefited—one out of every 8.

Still other comparisons of 1960 figures with those of a decade earlier indicate how much the program under Public Law 874 has grown in its first decade. Since 1951 the number of districts eligible for payments has more than trebled, the number of federally connected pupils has almost trebled, and net entitlements under the act have increased nearly six times:



Public Law 874: Federal funds appropriated for assisting local educational agencies with the cost of maintaining and operating public elementary and secondary schools, 1951 through 1960

	1950-51	1959-60
Number of eligible districts.....	1,172	3,821
Number of federally connected pupils.....	512,050	1,502,432
Net entitlements of eligible schools.....	\$29.7 million	\$177.6 million

There are several reasons for these increases. Federal activities have multiplied. Liberalizing amendments have extended the coverage of the law and increased its benefits: The definition of "federally connected children"

**Federal funds for local educational agencies under
Public Laws 815 and 874: Totals for first 10 years,
by States, 1951-60**

State	P.L. 815: Funds reserved as of Sept. 30, 1960	P.L. 874: Net entitlements as of June 30, 1960
Alabama.....	\$19,077,167	\$18,368,154
Alaska.....	10,611,181	25,982,027
Arizona.....	23,888,209	14,668,878
Arkansas.....	14,054,240	7,633,149
California.....	143,027,583	164,610,645
Colorado.....	17,931,309	23,891,291
Connecticut.....	9,432,544	11,318,452
Delaware.....	305,320	779,856
Florida.....	23,186,582	22,571,857
Georgia.....	31,359,393	28,668,706
Hawaii.....	19,077,216	16,051,371
Idaho.....	6,247,060	5,794,648
Illinois.....	13,735,016	18,754,274
Indiana.....	9,034,010	7,078,656
Iowa.....	2,260,884	2,928,632
Kansas.....	14,259,633	29,443,201
Kentucky.....	6,098,642	8,428,710
Louisiana.....	6,932,869	5,062,184
Maine.....	3,039,164	6,833,608
Maryland.....	48,492,577	33,601,986
Massachusetts.....	3,479,947	18,316,668
Michigan.....	41,247,513	8,436,049
Minnesota.....	3,786,956	1,446,296
Mississippi.....	7,147,969	6,481,167
Missouri.....	14,431,163	10,980,707
Montana.....	7,491,961	4,717,822
Nebraska.....	5,701,444	9,289,215
Nevada.....	6,063,269	6,208,623
New Hampshire.....	825,087	4,573,010
New Jersey.....	9,367,415	14,485,022
New Mexico.....	35,040,189	17,132,374
New York.....	15,297,390	20,504,791
North Carolina.....	10,284,184	8,358,524
North Dakota.....	3,084,578	1,820,001
Ohio.....	23,022,662	27,608,437
Oklahoma.....	26,474,634	34,865,884
Oregon.....	4,047,153	5,320,130
Pennsylvania.....	4,505,987	16,954,525
Rhode Island.....	3,445,405	8,376,848
South Carolina.....	15,731,420	13,881,606
South Dakota.....	4,739,660	8,355,899
Tennessee.....	8,896,581	9,574,231
Texas.....	53,468,931	61,739,817
Utah.....	9,163,724	9,222,611
Vermont.....	185,110	490,773
Virginia.....	61,189,564	69,658,368
Washington.....	38,898,570	40,678,127
West Virginia.....	168,148	768,292
Wisconsin.....	1,380,077	3,076,457
Wyoming.....	1,864,238	2,685,686
Guam.....	2,818,373	2,044,544
Puerto Rico.....	89,674
Virgin Islands.....	120,651
Federal agencies.....	103,082,116	44,607,872
Total.....	948,471,691	945,251,312

¹ Funds reserved for certain Federal installations for constructing school facilities on Federal property.

² Funds transferred directly to certain Federal agencies for maintaining and operating schools for children living on Federal property if no local agency is able to do so.

has been broadened to include, for instance, Indian children under one subsection of the act and, under another, children of parents in the Armed Forces; the definition of "Federal property" also has been made more generous; and the average rate of payment per pupil has been raised. Both school population and school expenditures have increased, and local and State school officials have become better informed about the provisions of the law and more interested in taking advantage of the aid they offered.

These increases notwithstanding, the program has had its stable side. Federal payments under the act have remained at a fairly constant ratio to the total operating expenses of the eligible districts: the average has been 4.94 percent, ranging between a low of 4.52 percent in 1958 and a high of 5.69 percent in 1951. The number of federally connected children in average daily attendance in the eligible districts, though now 3 times as large as at the beginning, has deviated but little from its original relation to the total number of children in those districts: it began at 17.23 percent, rose slightly in the next 2 years, and then dropped slightly, to remain just under 15 percent from 1955 on. What is more, payments under the various sections of the act have stayed in approximately the same relation to each other.

**Size of School Districts Eligible for
Assistance Under Public Law 874**

SCHOOL DISTRICTS receiving assistance under Public Law 874 (for defraying their current expenditures) come in all sizes but most of them are large, according to an analysis the Office of Education has made of eligible applicant districts in the school year 1959-60:

Size of district, by enrollment	Total districts in U.S. (number)*	Districts eligible under P.L. 874	
		Number	Percent of total
25,000 and over.....	123	58	47.2
12,000-24,999.....	230	101	43.9
6,000-11,999.....	629	244	38.8
3,000-5,999.....	1,409	419	29.7
1,200-2,999.....	3,147	827	26.3
600-1,199.....	3,170	661	20.9
300-599.....	3,635	653	18.0
150-299.....	3,436	456	13.3
50-149.....	4,791	313	6.5
1-49.....	14,842	89	.6
Nonoperating.....	7,017
Total.....	42,429	3,821	9.0

*From Bureau of the Census, Public School Systems, 1960.

Do large school bond sales attract lower interest rates?

IN THE 1959-60 school year \$2.2 billion worth of bonds were sold for public school purposes at interest rates ranging from 2.60 percent to 5.21 percent. Since even a slight difference in rate, say one-tenth of one percent, may add considerably to the total cost over a long period, school officials are looking for reasons for the wide range. They hear many explanations—some sound, some not.

One theory they often hear is that large bond issues, in dollar volume, sell at lower interest rates than small. In an effort to determine whether size does in fact have a significant influence on rates, let us analyze 1959-60 school bond sales.

In any analysis of bond sales we should begin with the assumption that no two bond offerings are equal in every respect. Even two bond issues with the same Moody rating, the same retirement schedule, the same coupon rate, offered in the same amount and on the same day in the same locality may not have the same appeal to buyers. Even the same quality rating on two bond issues does not give them absolute equality: bonds with the same quality rating may differ from 10 to 15 percent in interest rates.

There is no doubt, however, that many of these factors do influence interest rates. We can see from the record of all 1959-60 school bond sales that the rating and the term of the bonds are major factors in rates:

The higher the rating the lower the interest rates: The average net interest cost on all bonds with a Moody rating of AAA was 3.26 percent and on bonds with a rating of BA the cost was 4.55 percent.

The shorter the term of the bond the lower the interest costs: Bonds maturing in 10 years sold at an average net interest cost of 3.56 percent, in 20 years at 3.77 percent, and in 30 years at 4.12 percent.



Mr. Deering, specialist in financing school facilities, regularly supplies School Life with school bond data. He bases this article on his January 1961 circular entitled "Bond Sales for Public School Purposes, July 1, 1959-June 30, 1960" (OE-22009).

If we look at bond sales by rating and term combined, we see that the average net interest rate was progressively higher for each Moody rating, from AAA through BA, as the term of the bond was increased: Median interest rates ranged from 3.10 percent on bonds rated AAA and maturing in 15 years to 4.53 percent on bonds rated BA and maturing in 25 years and over.¹

Some factors have more influence on rates than others, and some, including the size of issue, cannot be considered apart from others. If we consider bond sales in 1959-60, grouped by size alone, we find these average net interest costs:

Under \$500,000	3.90
\$500,000-\$999,000	3.86
\$1,000,000-\$4,999,000	3.87
\$5,000,000 and over	3.75

Since the range in rates is narrow and the downward trend is not consistent, we cannot conclude that size was the determining factor.

By taking a few isolated examples we might show that the larger the bond issue, the lower the average net interest rate.

Example 1: Two bond issues, both rated AA and both maturing in 25 years, were sold in the same State, one for \$10 million at 3.57 percent and the other for \$975 thousand at 3.87 percent.

Example 2: In another State two bond issues, both rated AA and both maturing in 20 years were sold, one for \$3.5 million at 3.63 percent and the other for \$250 thousand at 3.93 percent.

Many examples of this type could be found, and they might seem convincing. But by taking a different set of examples, which also seem convincing, we might show that the smaller the issue the lower the rate.

Example 1: In one State two bond issues, both rated AA and both maturing in 25 years, were sold, one for \$13 million at 3.87 percent and the other for \$380 thousand at 3.56 percent.

Example 2: In the same State a \$30 million bond issue rated A and maturing in 15 years sold at 3.86

¹ *School Life*, September 1960, p. 15.

percent and a \$350 thousand issue rated A but maturing in 19 years sold at 3.66 percent.

Since these sales point to opposite conclusions, we can be sure that factors other than rating, term, and size of the bonds also affected the interest costs. But if size were a significant factor it should be apparent when rating and term are constant. In the analysis of sales below, these two factors are controlled.

During the 1959-60 school year \$1.5 billion of the \$2.2 billion bonds sold for public school purposes received Moody ratings distributed as follows: AAA—4 percent; AA—28.0 percent; A—41.8 percent; BAA—23.9 percent; and BA—2.3 percent. Since the AAA bonds and the BA bonds were not widely distributed, we can exclude them without affecting the analysis; the AA, A, BAA bonds, constituting 94 percent of all rated bonds, give a fair representation.

The 1959-60 dollar volume of all these school bonds—AA, A, and BAA—is distributed in table 1 by Moody rating and by size of sale, in table 2 by term of issue and size of sale, and in table 3 by Moody rating and term of

issue. From these three tables we can pull together some significant facts about the concentration of bond sales according to size:

Under \$500,000.....	43.5 percent were rated BAA.
	59.5 percent matured in 15-24 years.
\$500,000-\$999,000	51.3 percent were rated A.
	57.8 percent matured in 15-24 years.
\$1,000,000-\$4,999,000	46.2 percent were rated A.
	51.3 percent matured in 15-24 years.
\$5,000,000 and over.....	55.1 percent were rated AA.
	53.3 percent matured in 25 years and over.

Table 4 consistently supports two relationships in each size category: (1) As the quality rating rises the interest rate falls; (2) as the term increases the rate goes up. But for the same rating and for the same term it shows no consistent relationship between size of bond issue and interest rate: AA bonds for 15 years, for example, support

Table 1.—Percentage distribution of the dollar volume of all AA, A, and BAA school bond sales in 1959-60, by Moody rating and size of sale

Size of sale (in thousands)	AA		A		BAA		All ratings	
	Percent by Moody rating	Percent by size of sale	Percent by Moody rating	Percent by size of sale	Percent by Moody rating	Percent by size of sale	Percent by Moody rating	Percent by size of sale
Under \$500.....	14.1	1.6	42.4	3.5	43.5	6.2	100	3.6
\$500-\$999.....	16.2	5.6	51.3	12.7	32.5	13.8	100	10.7
\$1,000-\$4,999.....	18.6	29.6	46.2	53.0	35.2	69.2	100	49.8
\$5,000 and over.....	55.1	63.2	37.3	30.8	7.6	10.8	100	35.9
All sizes.....	31.3	100.0	43.4	100.0	25.3	100.0	100	100.0

Table 2.—Percentage distribution of the dollar volume of all AA, A, and BAA school bond sales in 1959-60, by term of issue and size of sale

Size of sale (in thousands)	Under 15 years		15-24 years		25 years and over		All terms	
	Percent by term of issue	Percent by size of sale	Percent by term of issue	Percent by size of sale	Percent by term of issue	Percent by size of sale	Percent by term of issue	Percent by size of sale
Under \$500.....	22.2	14.7	59.5	4.3	18.3	1.5	100	3.6
\$500-\$999.....	10.2	20.3	57.8	12.5	32.0	7.7	100	10.7
\$1,000-\$4,999.....	5.1	46.4	51.3	51.5	43.6	48.3	100	49.8
\$5,000 and over.....	2.8	18.6	43.9	31.7	53.3	42.5	100	35.9
All sizes.....	5.4	100.0	49.7	100.0	44.9	100.0	100	100.0

Table 3.—Percentage distribution of the dollar volume of all AA, A, and BAA school bond sales in 1959–60, by Moody rating and term of issue

Moody ratings	Under 15 years		15–24 years		25 years and over		All terms	
	Percent by Moody rating	Percent by term of issue	Percent by Moody rating	Percent by term of issue	Percent by Moody rating	Percent by term of issue	Percent by Moody rating	Percent by term of issue
AA.....	3.7	21.2	40.7	25.7	55.6	38.7	100	31.3
A.....	7.0	55.7	67.6	59.1	25.4	24.6	100	43.4
BAA.....	5.0	23.1	29.9	15.2	65.1	36.7	100	25.3
All ratings.....	5.4	100.0	49.7	100.0	44.9	100.0	100	100.0

the theory that small issues mean higher rates, but B/A bonds for the same term do not.

A more valid comparison, however, would be to compare interest rates for each size at the point of greatest concentration of sales. At that point, if the theory we are examining is valid, small bond issues would bear higher interest than the average for all bonds in the same quality and term category; large bond issues would bear

Table 4.—Average net interest cost of all AA, A, and BAA school bonds for the 1959–60 school year, by size of sale, Moody rating, and term of issue

Size of sale (in thousands)	AA	A	BAA
Under 15 years			
Under \$500.....	3.21	3.68	3.83
\$500–\$999.....	3.18	3.49	4.06
\$1,000–\$4,999.....	3.19	3.47	3.87
\$5,000 and over.....		3.60	
All sizes.....	3.19	3.55	3.89
15–24 years			
Under \$500.....	3.41	3.79	4.15
\$500–\$999.....	3.43	3.78	4.09
\$1,000–\$4,999.....	3.42	3.79	4.14
\$5,000 and over.....	3.48	3.66	4.59
All sizes.....	3.45	3.75	4.20
25 years and over			
Under \$500.....	3.58	4.18	4.23
\$500–\$999.....	3.66	3.86	4.26
\$1,000–\$4,999.....	3.53	3.92	4.21
\$5,000 and over.....	3.85	3.85	4.25
All sizes.....	3.79	3.89	4.22

¹ Greatest volume of sales for size range.

lower interest. But table 4 shows just the reverse to be true: Bond issues under \$500,000 (concentrating in the BAA and 15–24 years category) bear 4.15 percent in contrast to the average of 4.20 for bonds of all sizes in that category; whereas bond issues over \$5 million (concentrating in the AA and 25-years-and-over category) bear 3.85 percent in contrast to 3.79 percent for all bonds.

Probably the most convincing evidence we can find that large sales did not attract lower interest rates in 1959–60 is in the analysis of sales of bonds rated A and maturing within 15 to 24 years: 65 bond sales in 20 States, representing all sections of the country in the \$500,000 to \$999,000 sales range, averaging \$734,000, sold at an average net interest of 3.78 percent; 108 bond sales in 28 States representing all sections of the country in the \$1,000,000 to \$4,999,000 range, averaging \$1,900,000, sold at an average net interest rate of 3.79 percent.

By whatever method we analyze 1959–60 bond sales, we find no proof that large sales obtain lower rates than small sales. If, during the year, there was a relationship between size and cost, it was obscured by other factors.

There are many factors in interest rates other than those we have considered—among them, call features, date offered, and condition of the market and of the community. Although these are not so easily measured as quality rating and term of bonds, there is evidence that they influence interest rates. Some school systems, for example, have apparently obtained lower rates by presenting documented evidence that their communities have good prospects for long-range growth, are financially stable, and are punctual in meeting their financial obligations; others by being well enough informed to offer bonds when the market is favorable; and still others by making careful preparations before offering an issue.

All factors are worth the attention of school men, for by their own actions they may reduce costs and gain public support for their schools.

The Commissioner's Statement

(Continued from page 2)

quality that is not uncommon in Europe, and the large commitment of economic wealth to education that is being made in the Soviet Union. Our present waste of human resources must give way to an educational program that will fulfill the potentialities of every individual and achieve the maximum well-being of the Nation. This must be done without regimenting the individual and in a manner entirely consistent with the tradition of American freedom.

I believe that desegregation must move forward in accordance with the law of the land. I recognize the difficulties inherent in changing a system that has been rooted in our culture and economy for so many years. However, I am optimistic about the eventual outcome because of many notable instances of integration which indicate the capacity of the American people to observe both the spirit and the letter of the law.

I do not believe that the problems of financing education should be encumbered by social and legal issues that do not bear directly on education itself.

Although the quality of our education has improved considerably over the past few years—from elementary school through college—it is not as good as it should be. Too often we fail to elicit from both our students and teachers their best efforts. We must have greater rigor at all levels in order to achieve the proper ends of education and guarantee excellence in our society.

We pay our teachers far less than we should for fulfillment of their proper role in our society. I believe that the compensation of our teachers should be raised to a just and adequate level. A general high quality of teaching in our schools will be achieved only when our society is willing to pay for it.

I believe that increased emphasis on vocational education is an urgent national need. More attention must be given to the education of those high school graduates who can best fulfill their own and the national interest through vocational and technological pursuits.

It is in the national interest to guarantee the finest education possible for every person, regardless of his handicaps or disabilities.

We need more counseling and we need better counselors. But we must guard against destroying the initiative and independent judgment of the students who are counseled.

We need better testing facilities for the identification of individual ability and creativity, but we must not let testing devices obscure the unique and precious elements in human personality.

I regard education as a continuing process that extends beyond the schools. It should engage the active interest of every citizen and the resources of our libraries and television channels, as well as other means of imparting knowledge and stimulating thought.

As I take office, my immediate emphasis will be on the following:

1. Vigorous support of the Administration's proposals in education.
2. Encouragement of quality and rigor in teaching and in what is taught.
3. Comprehensive study of Federal programs affecting education at all levels.
4. Issuance of findings and recommendations on educational policy wherever and whenever they are justified by competent research leading to informed judgment.
5. Intensified study of education in the new nations of Africa with the intention of offering them every possible assistance; the establishment of mutually beneficial educational relations with the nations of Latin America; and the early completion of studies of education in Asian countries.
6. More intensive development of the Office of Education as a national forum for the cultivation of ideas on education by outstanding minds from all disciplines, academic and nonacademic.
7. Strengthening the Office of Education relations with State departments of education and institutions of higher education, as well as its relations with other Federal agencies.
8. Strengthening of the Office of Education as a research center, and, through the use of automatic data processing, as a dissemination center for accurate, up-to-date information on education.
9. A clear definition of the mission and organization of the Office of Education, employing the report of a committee that was established by my immediate predecessor, Dr. Lawrence G. Derthick.

Throughout the world there is a growing faith in education as the one road to an abundance of material wealth. But more than this, education is the road to cultural enrichment, to intercultural communication, and to worldwide understanding. Most important, education is the road to genuine freedom—the freedom and dignity of the individual.

Standard educational terminology: a critical need

Every educational agency in the country uses educational statistics in numerous ways—in determining policy, setting standards, planning programs, measuring progress. For example, State legislatures are guided by educational information in drafting legislation and appropriating funds for schools; State agencies, in setting curriculum requirements or standards of accreditation; school administrators, in estimating costs of construction and operation; local boards of education, in measuring the progress and efficiency of their schools. And all agencies are influenced by comparing their own States with other States.

If the statistics available to the public are not accurate and up to date, they are of little value: School administrators cannot estimate tomorrow's needs on data 3 or 4 years old. And yet even the most recent statistical reports are out of date when they are published—out of date because their compilers had to spend valuable time in adjusting data to make them comparable.

Here Mr. Lichtenberger sees lack of comparability in educational terminology as the obstacle to the reporting of accurate up-to-date information and consequently the obstacle to the improvement of education.

COMPARABLE educational information is one of the most urgent needs in American education. Year after year the problems caused by lack of comparable educational information, problems important to every segment of education, grow more perplexing. Year after year they will become more and more perplexing unless we have comparable educational information.



Mr. Lichtenberger, specialist in standard terminology and definitions, came to the Office of Education from the Nebraska State Department of Education, where he had been director of research and statistical services for 10 years. He is head of the Standard Ter-

minology and Definitions Unit of the State School Systems Section, the unit now developing handbooks of standard terminology on school staff and pupils.

We can compare items of educational information only on the basis of common definitions. When an item of information is discretely defined, *widely used as defined*, and the data it produces need no adjustment when accumulated, we can say that it and its definition are standardized. Data based on standardized definitions are comparable. When we have standardized most items of educational information and their definitions on a national basis, we will be on our way to achieving a high degree of comparability. Clearly, the basic task is to standardize items of educational information.

Educational leaders have recognized the need for comparability of educational statistics for more than half a century. During the past 50 years they have made attempt after attempt and introduced program after program to establish a common language of education. To say that their efforts have been ineffective would be unfair. We have no more comparable educational information than we have because the task of achieving universal agreement on what to call a given item of information is so enormous.

Before we can define an item of information we must first identify it. The programs introduced in 1912, and in the 1920's, 1930's, and 1940's, to achieve "uniformity" of educational information fell far short of their goal, but they did result in the identification of many items logically a part of organized systems of educational records and reports. They established, moreover, the foundation for most of the divisions of educational accounting and reporting and for many of the terms of communication now commonly used. Such items as average daily attendance, capital outlay, debt service, revenue receipts, nonrevenue receipts, school plant, original enrollment, and membership did not become part of school records by accident—they were adopted by deliberate choice.

Before 1950 all the programs emphasized the improvement of records forms, report forms, procedures, and channels of reporting. They gave relatively little attention to the improvement of each data item at its source, that is, what was recorded, how it was worded, and the meaning of each item. If these programs had emphasized the improving of each item of data at its source as effectively as they did the mechanics of collecting data, a much

greater degree of comparability of educational terminology would exist today.

The degree to which standard terms and items are lacking about education can be illustrated with scores of examples.

Take the term "teacher," for instance. "Teacher" is not always used in the same way. Some reports count as teachers staff members who may or may not have part-time classroom duties, such as principals, librarians, and supervisors. The number of "teachers" in such reports cannot be compared with the number of teachers shown in other reports counting only properly defined classroom teachers. Until all reports on teachers use the same definition, there can be no reliable comparison without time-consuming adjustment of reported data.

Or take the term "enrollments" as it now is used. "Total school enrollments" shown by one State may include not only "original" enrollments but also "reentries." Another State may report only "original" enrollments. Inclusions of "reentries" in total enrollment counts can inflate reported totals by many thousands and make reliable comparison of the totals difficult.

Although pupil-teacher ratio is one of the criteria commonly used in determining the efficiency of school systems, pupil-teacher ratio is by no means a standardized measure. In computing ratios, one school system may include other staff members as well as teachers; another system, only classroom teachers. Until school systems accept and use a common definition, we can expect them to count pupils differently, and we cannot presume that the ratios they report are comparable.

Other examples illustrate the lack of uniformity in even the most commonly used terms. There is, for instance, no standardized definition of the term "pupil." Is a person enrolled in a community college a "pupil" or a "student"? "School" is used so widely that a definition would seem unnecessary, and yet the term is not used consistently or accurately in many instances. A count of "schools" may actually be a count of school buildings, school plants, or school districts, none of which would give an accurate count of "schools." An elementary school and a secondary school housed in a single building are each a "school," just as one "school" housed in several school buildings is a "school." Yet reports do not always make these distinctions. There is no firm definition of the term "school staff member," nor of "director," "coordinator," and "supervisor," three terms often used interchangeably.

Many more educational terms, items, and units of measure that are either not well defined or not widely used as defined could be mentioned to illustrate the need for standardization of educational terminology.

The increased use of automatic data-processing equipment has improved the mechanics of collecting educational information and has dramatized the need for standardizing data at points of origin. Data-processing machines are becoming an essential part of record systems at all levels of education. Their principal function—the rapid treatment of great amounts of information—is almost completely lost when the basic items fed into them are not standard and comparable. Speeding the flow of data from local school systems through State departments of education to national levels is futile and costly if the data have limited uses because they cannot be reliably compared, combined, or used effectively in summaries, research, or planning. Automatic processing of educational information will be successful only to the degree to which items of educational information are standardized. Very few items of educational data now collected and recorded can be reliably used in a nationwide system of automatic data processing.

Data items do not become standardized merely by chance or through use. Comparability of items of educational information can be achieved only through a program designed to identify and define the items and encourage universal use of the items as defined.

Since 1951 the Office of Education, State and Territorial educational officials, and representatives of national educational organizations have been working cooperatively to standardize terminology through the preparation and publication of handbooks defining educational terms. Handbooks have already been issued on State educational reporting, school finance, and school property, and two are being prepared on pupil and school staff personnel. Before a handbook is published, hundreds of representatives of school systems and State departments of education throughout the Nation study and discuss each item and agree on each definition to be included.

Many items of educational information are well defined that are not yet universally used as defined. Much work remains to be done before all parts of the Nation adopt and use the definitions in the national handbooks. We are, however, moving ahead: 20 States have already adopted the definitions in the national handbook on school finance. Through the efforts of State officials, helped by funds from title X of the National Defense Education Act and the consultative services of Office of Education specialists, nearly every State will very likely be using standard school finance terminology by 1963.

At the present rate of identifying and defining items of educational information, however, standardization will not be complete for at least two decades. We still need to identify and define items for the instructional program, subject-matter fields, instructional services, and auxiliary

Statistic of the Month

School bond sales

APPROXIMATELY \$2.2 billion worth of bonds for public school purposes were issued between July 1, 1959, and June 30, 1960, by five legally authorized agencies: States; counties; cities, towns, and townships; school districts; and building authorities.

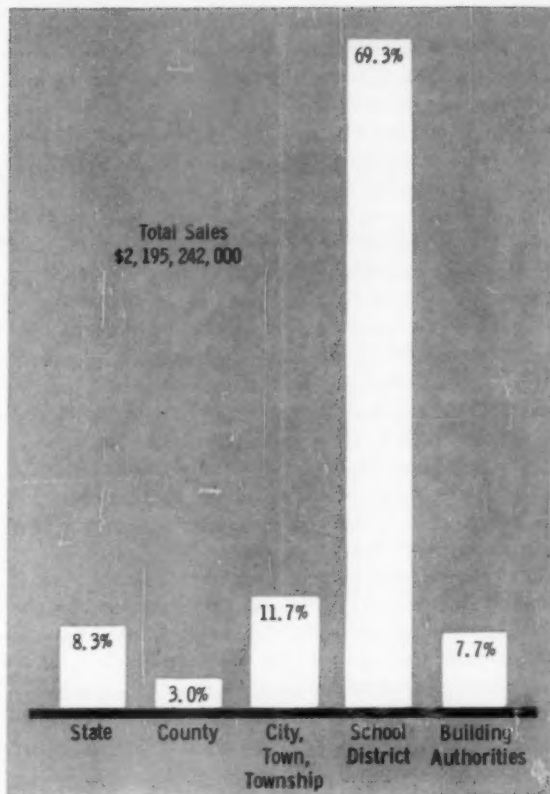
Bond sales for public school purposes by issuing agency, 1959-60

Issuing agency	Amount sold (thousands)	Percent of total
State.....	\$181,645	8.3
County.....	65,911	3.0
City, town, township.....	257,299	11.7
School district.....	1,520,421	69.3
Authority.....	169,966	7.7
All agencies.....	2,195,242	100.0

districts; and building authorities. School districts issued almost 70 percent of the new bonds.

Approximately one quarter of the bonds were for terms of less than 15 years, about half for from 15 to 24 years, and one quarter for 25 years and over.

These facts are based on monthly tabulations of the Investment Bankers' Association of America. They are reported, along with others on interest rates, Moody ratings, sales by month and State, in "Bond Sales for Public School Purposes," by Clayton D. Hutchins and Elmer C. Deering (1961, 11 pages, OE-22009). Copies



Bonds sold for public school purposes, 1959-60: Percentage issued by each type of agency

may be obtained free from the U.S. Department of Health, Education, and Welfare, Office of Education, Washington 25, D.C.—By Emery M. Foster, Chief, Research Studies and Surveys Section.

services related to school management and operation. In addition, many materials must be developed to assist school systems in using the defined items.

The objectives of the American educational system will not be achieved in our time or in the future unless they are bolstered with accurate educational information. The interpretation of educational information to patrons of the schools and to the public in general will have questionable value unless we use consistent and understandable terminology. In the United States elected or appointed officials operate public institutions for and in behalf of the people.

How the people regard the school, their most cherished public institution, is often in direct proportion to the amount of consistent and meaningful information available to them about the programs and purposes of public education. If we are to maintain our educational vigor, it is essential that we have universality in educational terms, so that we can adequately and accurately describe the status of education.

Current efforts to standardize educational terminology and to improve the collection, analysis, and dissemination of data must be intensified if all the significant items of in-

formation about education are to be comparable throughout the Nation. Intensified efforts will require greater leadership from State departments of education and the U.S. Office of Education. A committee of the Council of Chief State School Officers clearly set forth the roles of these agencies as early as 1929 when it, in describing the problem of standardization as one of developing a nationwide system of education statistics, said that the job is "one of mutual State approach with or without the aid of the Federal Government . . . Since, however, the very problem is that of the Federal system of education statistics and this in itself is possible only to the extent that statistical uniformity exists among the States, the participation and aid of the Federal Government comes to be an essential."¹

In the three decades since State educational representatives accepted this statement, there has been a limited program—interrupted by the depression and World War II—of the States working cooperatively with the Office of Education to improve educational information. But considering the vast amount of work and the manpower and money required to complete the task, efforts to date have been hardly more than token.

American education cannot afford to wait for years to achieve comparability of educational information. Nor need it. We can achieve a high degree of uniformity of educational information within a relatively few years by intensifying our efforts to acquire manpower and financial support in proportion to the size of the task.

¹ Report of the Committee on Reports of State School Systems, National Council of State Superintendent and Commissioners of Education. December 1929.

State Educational Records and Reports Handbooks

Handbooks issued to date are available from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.

The Common Core of State Educational Information, by Paul L. Reason, Emery M. Foster, and Robert F. Will. State Educational Records and Reports Series: Handbook I, Bulletin 1953, No. 8. 35 cents.

Financial Accounting for Local and State School Systems, Standard Receipt and Expenditure Accounts, by Paul L. Reason and Alpheus L. White. State Educational Records and Reports Series: Handbook II, Bulletin 1957, No. 4. \$1.

Financial Accounting for School Activities, by Everett V. Samuelson, George G. Tankard, Jr., and Hoyt W. Pope. State Educational Records and Reports Series: Handbook III, Bulletin 1959, No. 21. 50 cents. (Supplement to Handbook II)

Property Accounting for Local and State School Systems, by Paul L. Reason and George G. Tankard, Jr. State Educational Records and Reports Series: Handbook III, Bulletin 1959, No. 22. 75 cents.

ad Minutes

Briefly noted ---
for the busy School Administrator

Material for this department is prepared by the staff of the School Administration Branch, Division of State and Local School Systems.

A community's job. Abraham Ribicoff, the new secretary of the Department of Health, Education, and Welfare considers waste of talent the community's problem, not just the school's. In a speech in New York City, January 29, 1961, he said this:

In our large cities 40 percent of the students who start out in high school drop out before graduation. What are they doing now? Many, you can be sure, are just hanging around, untrained for employment, with no place to go. Some undoubtedly are on police blotters or have wound up in detention homes. And—just as serious, just as much a loss to society—are the many other talented youngsters who have taken any jobs that came along, jobs which fall short of their potential ability.

This is not just an educational problem; it is a community problem. Its solution will be found, not merely by pumping more dollars into education but by pumping more work and thinking—along with more dollars—into overall community planning and development. * * *

With better planning, well in advance of the bulldozers, the school, the branch library, public parks, and playgrounds could be located in adjoining sites, providing a community center. Such an area could become the very heart of a city neighborhood, giving it roots, stability, and variety. This center would be a magnet for constructive activity instead of aimless waste.

* * *

Houston on the air. On a weekly half-hour radio program the Houston independent school district broadcasts information about its schools. The programs, all in the evening, call the public's attention to current problems and outstanding achievements of the schools and their students. For example, some of the programs early this year explained the significance of pupil progress reports and discussed school use of television and the purposes and procedures of the science program in secondary schools. Since the programs have been well received by the community, Houston is continuing them during the spring semester.

Education funds administered by HEW. In 1958-59, the latest year for which audited figures are now available, the Department of Health, Education, and Welfare administered nearly \$738 million for educational purposes. This is where the money went:

<i>Administering office</i>	<i>Thousands of dollars</i>
Office of Education:	
Administration	\$8,229
Cooperative research	2,752
Land-grant colleges	5,052
National Defense Education Act:	
Fellowships to prepare college teachers	5,294
Guidance, counseling, and testing	9,677
Improvement of statistical services of State educational agencies	367
Language development	5,010
Science, mathematics, and foreign language instruction	50,630
Utilization of new educational media	1,600
Office of The Secretary:	
Public library services for rural areas	5,218
School support in federally affected areas	215,066
Vocational education	44,638
Federally aided corporations:	
American Printing House for the Blind	410
Gallaudet College	972
Howard University	4,636
Office of Vocational Rehabilitation:	
Research and demonstration grants	4,600
Training grants	4,799
Public Health Service:	
Communicable Disease Center	769
Education in hospitals	215
Education of public health personnel	1,272
Indian health	283
Research fellows	10,154
Robert A. Taft Sanitary Engineering Center	318
Traineeships and training grants	60,203
Social Security Administration:	
Bureau of Public Assistance consultation and training	669
Children's Bureau training program	2,665
Surplus Property Utilization Division	292,366
Total	737,864

Figures for both 1958-59 and 1959-60 for all Government agencies will be published this summer in the Office bulletin, *Federal Funds for Education*.

★ ★ ★

Roanoke prepares own administrators. Roanoke city school officials are taking steps to provide themselves with an adequate number of qualified school administrators. A 2-year preparation program in school administration, conducted by the central office staff, supervisors, and principals with assistance of staff members from the University of Virginia School of Education, was begun in the fall of 1959.

Fifty persons from a list of more than 75 applicants were selected for participation in the program. The first phase

of preparation was orientation to the Roanoke city schools; the group met 1 evening a week for a total of 10 weeks. In the spring of 1960 participants were divided into 2 groups; one concentrated on secondary education in Roanoke and the other participated in a seminar designed to extend the orientation program into the broader State and national pictures. During the fall of 1960 the entire group met together over a 10-week period (1 evening per week) for a seminar in human relations.

The administrative work experience attempts to give the administrator-to-be an understanding of the operation both of individual schools and of the entire school system. Trainees are assigned to various members of the administrative staff for 1 hour a day over a period of 6 weeks. The trainees then develop and submit a plan for the improvement of some particular phase of the administration of the Roanoke schools. By July 1961, the Roanoke schools expect to assign at least twelve administrative positions to graduates of this training program.

A somewhat similar preparation program will be established in the Henrico County Schools of Virginia.

★ ★ ★

Property taxes not enough. School districts with only the property tax as a local source of revenue face an extremely difficult problem, says John D. Hogan, economist for the Northwestern Mutual Life Insurance Company. If, in the bargain, they are in a "low State-aid" State, they will hardly be equipped to educate for excellence.

Although property taxes seem to be keeping pace with our increases in wealth, Dr. Hogan says, speaking at the National Tax Association's 53d annual conference on taxation, they are not keeping pace with the exceptional increases in school needs; and we cannot expect the gap to be closed by State and Federal aid unless these kinds of aid are increased.

"It would be a propitious time," says Dr. Hogan, "to investigate all manner of alternatives to the property tax for local government use, as supplementary revenues rather than replacement revenues. Administrative areas might well be broadened to enclose the 'natural communities' of which urban governments, collectively, are a part. In a daring mood, we might profitably look again at the property tax as administered in the United Kingdom, that is, taxation of property on the basis of its income."

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Interest on new bonds. This month we augment our 12-month summary of interest costs with a report by quarters, which covers the 18 months ending December 1960. Monthly reports show fluctuations, but quarterly reports show trends more dependably.

Here the quarterly figures show that the average net interest cost of all new rated bonds has declined each quarter

since July-September 1959. Bonds with an A rating have declined persistently, but bonds with other ratings have fluctuated somewhat as they pursued their general downward trend. The overall decline was 0.42 percent, which means an annual reduction of \$4.20 on each \$1,000 bond.

Average net interest cost of bonds sold for public school purposes, by Moody ratings, each month from December 1959 to December 1960, each quarter from July-September 1959 to October-December 1960

This summary is based on sales reported by the Investment Bankers' Association. About 75 percent of the sales had a Moody rating.

Period	AAA	AA	A	BAA	BA	All rated bonds
By Months						
1959-60						
December.....		3.80	3.91	4.22		3.94
January.....	3.29	3.59	4.03	4.39	4.71	3.80
February.....		3.60	3.71	4.09	4.48	3.86
March.....	4.02	3.40	3.64	4.19	4.58	3.79
April.....	3.18	3.63	3.79	4.24	4.50	3.83
May.....	3.24	3.31	3.77	4.13	4.51	3.80
June.....	3.02	3.66	3.62	4.12	4.30	3.73
1959-60 average...	3.26	3.63	3.78	4.21	4.55	3.84
1960-61						
July.....	3.08	3.37	3.72	4.00	4.47	3.78
August.....	2.81	3.01	3.47	3.73	4.23	3.47
September.....	2.66	3.56	3.48	3.80	4.41	3.51
October.....		3.26	3.54	3.90		3.63
November.....	2.78	3.15	3.39	3.78	4.13	3.44
December.....	2.80	3.09	3.45	3.78	4.18	3.51
By Quarters						
1959						
July-September....	3.60	3.80	3.85	4.29	4.65	3.94
October-December..	3.04	3.56	3.82	4.19	4.75	3.84
1960						
January-March.....	3.35	3.53	3.74	4.20	4.60	3.80
April-June.....	3.10	3.60	3.73	4.18	4.45	3.79
July-September....	2.71	3.38	3.54	3.87	4.31	3.57
October-December..	2.78	3.14	3.47	3.81	4.16	3.52

¹ All are revenue bonds of school building authorities which are usually at least 0.5 percent higher than general obligation bonds.

Different sex, different ages. In the Florida public schools there are more men teachers at age 35 than at any other age; more women at age 55.

This is but one indication of the sharp contrast that has been found in age distribution patterns between men and women teachers in that State. For men the median age is 36; for women, who outnumber men well over two to one in a total of 36,781 teachers, the median age is 43. Women between the ages of 20 and 24 are fairly numerous; men at that age are few.

The number of men decreases rapidly after age 35. For women the number increases to age 30, drops sharply until 40, then rises again to reach the maximum at 55—evidence that many women leave teaching temporarily while their children are small.

★ ★ ★

Training for camp counselors. The American Camping Association, one of the largest groups of counselors in the country, is working to improve the services of the 100,000 counselors who are employed each summer. Some educators who recognize the summer camp as a means of extending the school year are working with the association and other groups.

Both camp leaders and educators are making plans. The association is preparing information on programs to strengthen counseling services. Since college students make up one of the largest groups of counselors, the association believes job placement and college credit for learning to be a qualified and an effective counselor could be combined. And the University of Michigan has planned a counselor-in-training program requiring 8 weeks of internship (4 weeks with children of elementary-school age and 4 weeks with children of junior-high-school age) and continuous supervision by a full-time counselor, a divisional director, and a university supervisor. The University of Michigan through the School of Education is also considering the establishment of a program specifically designed to train directors of counselor-in-training programs.

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School consolidation. North Carolina, a State where the county-unit type of district organization predominates, is making rapid progress in consolidating schools too small to offer effective educational programs. In the past school year, 26 counties consolidated small schools and 6 other counties were working on plans for consolidation.

A recent study comparing the size of the 829 high schools with their offerings in advanced mathematics courses such as solid geometry, trigonometry, and advanced algebra indicates some of the benefits derived from larger schools. Advanced courses were offered by all 15 of the schools with 1,000 or more pupils, 285 of the 452 schools with from 500 to 599 pupils, 32 of the 267 schools with from 100 to 199 pupils; and

New tool for statistical research

For many years the Office of Education has annually published a directory of public school superintendencies. This year's issue, Education Directory, 1960-61, Part 2: County, City, and Other School Superintendencies, is new in format and content. Here Mr. Foster and Dr. Gaumnitz describe some of the new features that make the directory a new tool for statistical research.

THE NEW DIRECTORY of superintendents of public schools, just off the press, breaks sharply with the practice of its predecessors: it counts and lists the school district on its own merits instead identifying it with a city. As a result it includes every one of the 14,498 superintendencies in the United States and Puerto Rico—more than twice the number listed in any previous directory.

Previous directories listed only two types of school superintendencies—county (or its equivalent) and city—and included only superintendents in cities with a population of 2,500 or more at the time of the latest decennial census. This basis of selection, however, has become completely untenable, for these reasons:

The population of a city is no longer a valid and reliable index of the size of a school district: consolidations, mergers, and other kinds of school organization have changed school district boundaries so much that many of them no longer coincide with city limits but in fact extend far beyond them.

only 4 of the 95 schools with fewer than 100 pupils.

North Carolina schools superintendents are already commenting on results of consolidation:

The curricular offerings for high school students of this area were increased by an average of 50 percent as a result of consolidation.

Graduates are far better prepared for job placement or college, and leadership qualities are more fully developed in the elementary schools and carried over in high school.

Students have better opportunity for effective learning because of improvement in equipment and facilities.

We can get much better results from our teachers because they can work full time in their respective fields.

Many large central districts are located entirely outside any city.

Census population data, the basis for classifying cities, are revised only at 10-year intervals. As time passes they become obsolete for many cities, especially those with rapidly growing suburbs.

The new directory measures the size of a school system not on the basis of city population but on the basis of 1959-60 enrollments in the school districts (data for the latest universe of local school districts were gathered jointly by the Office of Education and the Bureau of the Census). It lists separately all school systems accorded a degree of "independence" by the State school authorities.

Net effect of the change is to create a new tool for statistical research in education. The new directory makes it possible for the researcher, by making contact with the 14,498 superintendents, to cover all of the enrollment in the 42,429 school districts in the 50 States and the District of Columbia and the 76 districts in Puerto Rico. It also makes it possible for him to cover a maximum of the enrollment with a minimum of contacts: for example, by

MR. FOSTER, who is chief of the research studies and surveys, and DR. GAUMNITZ, who is chief of the local school systems unit, are authorities in educational statistics. Both have contributed many articles to School Life.

New classrooms in Mississippi. According to the December 1960 report of the Mississippi State Educational Finance Commission, 4,596 new classrooms have been completed in that State since March 1956, 1,018 classrooms are under construction, and applications have been approved for 751 more. These figures do not include some 400 classrooms being built entirely with local funds.

The school construction program in the State of Mississippi provides an allotment of \$12 annually for each child in ADA until 1982 and an additional \$3 for each Negro child in ADA through 1964. A school district may secure a loan or advance from the State Educational Finance Commission of 75 percent of the funds to which it will be entitled for the 20-year period.

Table 1.—Public school systems in 1960

Item	School districts		Enrollment October 1959 ¹	
	Number	Percent	Number (thousands)	Percent
All school systems, total.....	² 42,429	100.0	35,540.9	100.0
Enrollment size groups:				
25,000 or more.....	123	0.3	9,092.9	25.6
12,000 to 24,999.....	230	.5	3,732.9	10.5
6,000 to 11,999.....	529	1.5	5,177.9	14.6
3,000 to 5,999.....	1,409	3.3	5,857.5	16.5
1,200 to 2,999.....	3,147	7.4	5,929.7	16.7
600 to 1,199.....	3,170	7.5	2,702.9	7.6
300 to 599.....	3,635	8.6	1,574.2	4.4
150 to 299.....	3,436	8.1	749.5	2.1
50 to 149.....	4,791	11.3	437.8	1.2
15 to 49.....	8,715	20.5	226.8	.6
1 to 14.....	6,127	14.4	58.8	.2
Not operating schools.....	7,017	16.5

¹ Because of rounding, detail may not add to total.

² Does not include 76 districts in Puerto Rico.

Source.—Bureau of the Census.

getting in touch with only 2,391 districts—those with 3,000 or more pupils—he can completely cover half of the public elementary and secondary school enrollment in the United States.

Some of the difficulties in collecting statistics on public education are caused by the complicated and constantly

changing pattern of district organization. The new directory recognizes these difficulties; for each State it includes a description of the organizational pattern of school districts and the number of districts which the intermediate superintendent administers; if he supplies services but administers no schools, it tells this too.

The following features in particular make the directory a new tool for educational research:

It gives complete coverage of superintendencies, school districts, enrollments.

It is current. Since enrollment data are not tied to the decennial census, they can be kept up to date.

It is reliable. There is a logical relation between enrollment in the district and other school district data that did not exist between these data and the U.S. census of the population.

Its format and the organization of its content will simplify revision. The Office plans to bring the number of districts up to date regularly, about every 2½ years.

It lends itself to stratified sampling so that maximum efficiency can be obtained with minimum work and minimum cost.

The tables will give the reader an idea of the content and coverage of the 1960–61 directory. The publication itself, *Education Directory, 1960–61, Part 2: County, City, and Other School Superintendencies* (OE-20005-61), by Rudolph V. Thompson, Educational Statistics Branch, Office of Education, is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., at 75 cents.

FOOTNOTES TO TABLE 2, NEXT PAGE

¹ Includes 50 States, District of Columbia, and Puerto Rico.

² The county-intermediate superintendency is a unit of school administration that performs administrative and supervisory functions and provides supplementary educational services in a designated area comprised of two or more basic administrative units. In these superintendencies, the county school superintendent generally serves as an intermediary between the basic local administrative units and the State department of education.

³ The supervisory district or superintendency union is the name used for the intermediate type of school district in the New England States and New York State. Those town school systems which are too small, individually, to employ a superintendent full time, form supervisory unions consisting of two or more towns employing a single superintendent. The regional high school superintendencies are comprised of two or more towns in a region employing a superintendent jointly to administer only secondary education within their boundaries. (See footnote 7.)

⁴ The county-unit superintendency is a countywide basic administrative unit of which there are two variations, complete and partial. A complete county-unit superintendency includes all the

public schools of the county. A partial county-unit superintendency includes all the schools of a county with the exception of one or more independent superintendencies or districts. Both variations are included here.

⁵ The independent school system superintendencies are those with which to communicate directly rather than through an intermediary to contact a public school system of a particular State. Included are the independent school systems of cities, towns, villages, boroughs, consolidations, jointures and special districts.

⁶ The county superintendents perform mainly a service function in these counties. Enrollment data are listed under the independent school system superintendencies of the counties involved.

⁷ Includes regional superintendencies, as follows: Connecticut—8, Massachusetts—24, New Jersey—31, and Rhode Island—2.

⁸ Enrollment data as of September 1960.

⁹ Enrollment data not available before printing deadline.

Source of enrollment data: U.S. Office of Education-Bureau of the Census Survey conducted April to June 1960. Where enrollment data were not available from this survey, 1958–59 or later enrollment data from the State school directories were used.

Table 2.—Number of public school superintendencies and enrollment, by type of administrative organization and State, 1960-61

State ¹	Total superintendencies		Intermediate superintendencies				Basic superintendencies			
			County ²		Supervisory union and district or regional high school district ³		County-unit ⁴		Independent school system ⁵	
	Number	Enrollment								
Total.....	14,498	35,722,577	1,718	3,395,137	412	1,099,622	1,131	6,635,677	11,237	24,592,141
Alabama.....	114	766,915	32	256,944			35	279,350	47	230,621
Alaska.....	29	29,818							29	29,818
Arizona.....	47	294,370	14	126,624					33	167,746
Arkansas.....	457	408,578	40	80			35	8,012	382	400,566
California.....	917	3,250,537	52	108,259			6	91,825	859	3,050,453
Colorado.....	286	362,778	56	12,521			7	127	223	350,130
Connecticut.....	125	459,024			722	28,824			103	430,200
Delaware.....	93	82,206							93	82,206
District of Columbia.....	1	116,587							1	116,587
Florida.....	67	934,385					67	934,385		
Georgia.....	198	923,065					159	726,268	39	196,797
Hawaii.....	4	144,692							4	144,692
Idaho.....	121	155,779	6	1,522					115	154,257
Illinois.....	1,667	1,710,728	93	4,129			9	294	1,565	1,706,305
Indiana.....	296	939,271	85	272,893			3	4,164	208	662,214
Iowa.....	658	571,774	79	22,487			20	1,354	559	547,933
Kansas.....	449	456,056	103	109,567			2	313	344	346,176
Kentucky.....	212	621,478					120	445,894	92	175,584
Louisiana.....	67	681,682					64	661,153	3	20,529
Maine.....	121	187,232			92	119,319			29	67,913
Maryland.....	24	583,202					23	415,482	1	167,720
Massachusetts.....	252	849,551			79	86,779			173	762,772
Michigan.....	757	1,636,415	79	81,450			4	485	674	1,554,480
Minnesota.....	562	670,212	77	37,477			10	4,837	475	627,898
Mississippi.....	163	542,983	12	80			70	270,431	81	272,552
Missouri.....	666	786,534	102	40,160			12	1,155	552	745,219
Montana.....	245	139,048	56	16,276					189	122,772
Nebraska.....	500	273,903	91	45,358					409	228,545
Nevada.....	17	64,412					17	64,412		
New Hampshire.....	48	102,173			38	60,697			10	41,476
New Jersey.....	337	1,036,122	21	95,619	731	25,651			285	912,852
New Mexico.....	90	220,911					8	10,896	82	210,015
New York.....	298	2,673,764			104	723,235			194	1,950,529
North Carolina.....	173	1,103,500					100	776,644	73	326,856
North Dakota.....	384	131,144	53	15,524					331	115,620
Ohio.....	305	1,847,508	86	658,275			2	5,693	217	1,183,540
Oklahoma.....	598	530,698	77	46,410					521	484,288
Oregon.....	157	371,578	21	54,364			5	19,275	121	297,939
Pennsylvania.....	257	1,904,032	64	963,519			2	4,133	191	936,380
Puerto Rico.....	76	573,440							76	573,440
Rhode Island.....	41	128,436			72	80			39	128,436
South Carolina.....	131	594,431	22	80			24	250,698	85	343,733
South Dakota.....	319	140,373	64	29,550			3	1,608	252	109,215
Tennessee.....	153	789,870					95	520,650	58	269,220
Texas.....	1,152	1,981,657	197	90,975			57	41,317	898	1,849,365
Utah.....	40	229,622					24	80,658	16	148,964
Vermont.....	54	73,381			44	54,117			10	19,264
Virginia.....	115	822,541					85	552,565	30	269,976
Washington.....	303	608,370	34	11,876			5	138	264	596,356
West Virginia.....	55	460,429					55	460,429		
Wisconsin.....	190	676,969	71	289,002			1	925	118	387,042
Wyoming.....	107	78,413	21	3,356			2	107	84	74,950

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